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5. *Social Space as Fact.*

We have now achieved a certain freedom for sociological investigation. What value that freedom may have for us depends on what use we may be able to make of it.

Are our social phenomena spatial? Is their spatial form a peculiarly social space? If it is, in what way does this social space differ from a Newtonian or vulgar space? Is it narrower and more specialised, or is it broader, richer and more comprehensive? Is this social space a "fact?" If it is a fact, how are we to organise it in connection with other facts, social and physical?

The manner of approach[23] may be summarised from the preceding development, thus:

> We find no scientific justification for setting up any part or parts of our materials as certainly "fact," with respect to which other parts hold the place of "pure theory."
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> We find no scientific justification for assuming that whatever it is that we emphasise at some particular stage of our development as basic fact will permanently hold that position: since fact and theory are seen developing together in knowledge.

[23]For a comparable development in physiology one may examine Dr. Alexis Carrel's article "The New Cytology" (Science, March 20th, 1931) reporting on work done in the laboratories of The Rockefeller Institute for Medical Research. Dr. Carrel makes time a direct dimension of his study of cells and tissues. Cells, he describes, as "in physiological continuity with their environment": "cells and environment form a whole": "structure and function are two aspects of the same thing": "a tissue is an enduring thing, its functional and structural conditions become modified from moment to moment," so that "time enters as a part into the constitution of a tissue": "to study it at only one instant of the duration is almost meaningless." In contrast with the old method which "only reaches the mental constructs that were considered as being the anatomical elements," Dr. Carrel proposes the study of "a system cells-environment, of which the structural, functional, physical, physico-chemical and chemical conditions are considered in time as well as in space." Cells "never live in isolated units, but in colony formations of various types." Relations between mediums and growth energy of cells have been identified. Cells which are apparently morphologically identical prove to belong to different races characterised by differences in their nutritional properties. The food requirements are as fundamental as the morphological properties. Different cell types are also defined by the manner in which they modify their environments: "each tissue

> We find no scientific justification for assuming, at the present imperfect stage of our knowledge, that we can pick any one fact or structure of fact as best even for all present purposes.
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> We do find, instead, full justification for proceeding first with one set or system of facts, and then with another, to discover which gives us the richest results.
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> We find this approach valid, whether we start with the physical sciences and physical facts and work towards the social, taken as within the physical and as seen through it: or whether we start with the social sciences and social facts and work towards the physical, taken as within and as seen through the social.
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> In especial the entire problem as to what is to be taken as "thing," and what as behaviour, activity, or operation of "thing" in society is to be approached in this way.

If, now, in accordance with the older usage, we start by selecting as our basic fact or thing a physical world in Newtonian space and chronological time, with "life" evolving out of it, and with "higher mentality" evolving in that "life," we come in the end to the phenomena of society, the social "relations" or social "operations" which it is our special task to investigate and interpret. Already with "life," and in still greater degree with "mentality," science has been unable to frame what it takes to be their essential characteristics by the use of its Newtonian formulas, so that it has come to regard and describe them as non-spatial or "inner" in contrast with the spatial "outer": and if it has with some slight appearance of success brought the vital and the mental into connection in a common "inner," it is then faced with the social which insists on presenting itself as a new variety of "outer." In the earlier papers cited in Part I., I have argued that even under the approach through a space of physical

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or organ certainly manufactures in some measure its own medium, which, in its turn, acts on the cells."

The methodological aspect of these citations is manifestly in close correspondence with the positions taken in the present paper. The differences in the contemporary situation of investigation as between physiology and sociology should however be noted: (*a*) the physiologist can proceed experimentally step by step from his older formulations to his newer: (*b*) his methodological considerations may therefore appear as incidental results of his procedure rather than as its postulational basis: (*c*) the sociologist has before him physical, psychical and institutional forms of expression which are vastly more defective than even the older physiological abstraction of staining and slides: (*d*) the sociologist is therefore driven to much stronger immediate emphasis upon methodological postulation in order to break the barriers and gain position from which to make headway. The difference in the degree of emphasis upon the methodological considerations is, however, only a transitional difference in the stage of development of the investigation. There is no more dogma in the one case than in the other, and no more limitation in the one case than in the other. If sociology is at an apparent disadvantage in this respect, it has in another respect a great advantage. Physiology has reached a stage at which it must use most laborious and expensive techniques if it is to proceed. Sociology, however, once it gains an adequate linguistic frame for handling all of its materials in a single system of postulatory research, will find itself in much more direct interior contact and with closer powers of appraisal for the materials of research which it requires.

mensurations, the spatiality of the psychic and of the social must be recognised if consistency in development is to be secured.

HERE in contrast with the above historical approach we shall start from the other end, and shall select as our basic fact or " thing " all that which we mean by the social, as directly envisaged. This is very different indeed from selecting a defined and limited product called society under the preceding type of approach.[24] We do this, *not* as if we knew or could know in advance precisely what the terms social and society mean, but rather with these words as labels for a field of investigation. We have this society before us in the form of men and their activities and all that those activities involve. This includes the knowledge factors that are in the men and in their activities and their society. It also includes the factual references or implications, and the realisms and externalisations of their knowledge. It does not solve the epistemological problems of knowledge and the factual basis of knowledge. Neither does it evade them. It approaches them the other way around. Instead of inspecting a factual world with a knowledge factor floating in it, it inspects a living procedure of knowledge-experience-contact, with the stress for knowledge not on its exactness but on its indicativeness. It yields a single great system of research, trending towards the incorporation of all fact, in contrast with the extreme mechanistic or " outer-fact " systems which trend to take over and subordinate the interpretation of all knowledge and society. One advantage it has which we may immediately note is that within its own range of work it gets rid of the dogmatic inner-outer split which has been ruinous to the older approach.

[24] A comparable approach in psychology will be found in J. R. Kantor's PRINCIPLES OF PSYCHOLOGY (2 vols., 1924, 1926: see also his AN OUTLINE OF SOCIAL PSYCHOLOGY, 1929). Professor Kantor sets before himself a primary descriptive presentation of individual behaviour in precisely the spirit in which I set before myself a primary descriptive presentation of social situations. His fact of observation, which he names the " segment of behaviour," is always human activity, and it always exhibits the coupled characteristics of stimulus and response, each functional to the other. Therefore, while he is a student of behaviour and of nothing but behaviour, he is not a behaviourist in the sense of those who reduce their phenomena to physiological by-products, any more than he is an anti-behaviourist in the sense of the " inner-consciousness " psychologies. His behaviourism is " objective," in that it starts with direct and immediate description of phenomena: it is " organismic " in that its locus is the whole reacting organism in its full environment. Since Professor Kantor concentrates his attention on the conduct of individuals taken individually, and uses historically or biographically the individualistic approach; while I concentrate mine on the conduct of individuals taken in groupal activity, and use historically or biographically the sociological approach; our respective constructions show marked superficial differences in their treatment of society. These differences are so sharp that criticism under any of the ancient philosophical-psychological standards might make them appear to be radically opposed to each other. They are nevertheless differences of borderland results, rather than of basic understanding, and they are differences of that very type by means of which scientific advance may be secured. The combination of the two forms of approach, on a common basis of observation, offers, I believe, prospect of important gains in knowledge in this inadequately developed field.

THE social, so inspected, is most certainly spatial. It is not spatial in either a formal Newtonian sense, or a naïve vulgar sense: but for that matter it may be that nothing is spatial in exactly those senses, since the term space has widened far beyond those limited meanings. It has separations and distributions, it has discretenesses and continuities, and it has its own comparisons and mensurations. Its space is a peculiarly social space, for it is not under the control of any other space erected as though external to it; and indeed those purported external spaces are themselves capable of presentation as social constructions, whether or not in the end they or any one of them may furnish the deepest and most substantial form for sociological theory itself.

LET us now use the word institution to designate descriptively some special complex of the social situation, understanding that we are observing it with our sociological eyes directly, and not merely constructing a semblance of it under some pre-established theory. For illustration, let us consider the institution, money. If we apply to it Newtonian, vulgar, or, let us say, geographical space, that space will describe coins, bills, cheques, tills and depositaries, but it will formulate almost nothing of our social meaning. Yet the institution is spread out socially, it is socially spatial in every part of its description. Its social spatiality is so interwoven with its very sociality as to be inseparable. The money procedures have continuity throughout society, a continuity which a Newtonian form will not yield for it: but which, on the other hand, the Newtonian form cannot break, since this latter space simply does not reach to it at all.

Do not think that anything is added to, or changed in, the wide-spread functional phenomena of money when we call them spatial. The word space as applied to them gives a form under which they can be observed and investigated. Moreover, it gives a form which, we shall proceed to argue, covers every part of the phenomena and every bit of material which is needed for their interpretation just as fully as the Newtonian space form covers all mechanical phenomena, and in much the same sense.[25] That is our purpose here, and that is the purpose of all scientific investigation—to get, namely, all the phenomena involved under interpretative construction in system, in one system, in a full system.

SUPPOSE we take for illustration in place of such a wide-flung institution as money, one more closely organised, say a Tariff Reform League. This now has its own spacial spread running into Parliament, into various trades and business organisations, into investors' and consumers' circles, and into activities more vaguely specified as those of

[25] The terms " form " and " thing " may both be applied to space without radical distinction of meaning. The semantic interpretation is applicable to this as to other word-couples.

the common welfare. It connects with the Government, with the permanent offices of administration, and with the legislation of the future. It can be followed through under the same social spatial form until it connects with every citizen of the nation in which it is found, and, outward from the particular nation, without any break in its spatial form, into the entire world phenomena of industry and trade, and into all the living of all of the societies of the globe. Under this spatial form we can bring all the linguistic, argumentative and, hence, theorising activities of societies and of society: under it we can bring the utilisable physical earth, its mines and fields and power resources, entering in the forms of experience and knowledge, extensive or slight, with no radical cleft between the knowledge elements as to whether they are accurate statements or vague indications and implications of experience; with no radical cleft as to whether that experience is verbalised-psychic or physiological-vital.

UNDER this social spatial form we lay off our phenomena into divisions and patterns which seem best suited to their description and interpretation. Suppose we take for special consideration such an element as is indicated by the common expression " idea " or " theory." Here we do not find a mysterious and unregulated stranger from some foreign region, but we have before us a linguistic structure spatially spread out, and representative of other spatially spread out factors in our more general study. We have this special element in a common field or system with the rest of our materials. We identify our socially spatial discretenesses in many forms, one perhaps being as between two Tariff Reform Leagues with opposing policies. We follow through the continuities underlying these surface separations. If we take two nations with rival commercial interests as the discretenesses we have still the continuities beneath offered by the specifically human social industrial organisation of the present era. Our greatest need in all sociological investigation is mensuration, the weighing of conflicting or co-operating needs, powers, capacities, interests, purposes: here under a common social spatial form we have at last the possibility of such comparative estimations, on a basis upon which they may in the end be checked and verified.

WHAT we call the individual man becomes now, under this inspection, one special discreteness among many. Perhaps he is the most important of them all. Perhaps he is not. Investigation alone will establish. More probably he is the most important for certain ranges of study, and the less important, even the least important, for other ranges. Full knowledge of these ranges is still far in the future. But in one respect at least we already have the individual presentation under control. Recent physical investigations have distinguished local times, and similarly local spaces, from the more general form

of space-time. In the individual's reaction within his social world we have distinctly a phenomenon of this type. We may use the term point-of-view for the individual's presentation of himself to the world and of the world to him. This individual presentation is distinctly a local point-of-view within the full social situation : even the " wisest " man in the long temporal and wide spatial reach of society is but a dot within it. So taken, we have at once the basis for a reconstruction of the language that we must inevitably adopt out of every day life and use as tool for our sociological investigation. That language, both in its practical forms and in its physiological and psychological adaptations, has been developed under this individual, local point-of-view. It is tied to it, and carries its imperfections forward with it. In physiology it is already notoriously imperfect. In psychology it is perhaps wholly bad, and certainly so largely bad that the greatest precautions must always be taken when it is used.

AND, further, our individual-discrete in the general social space proves at once—indeed, we may say it has shown itself from the earliest of sociological investigations onwards—to be itself a complex, tied in its various parts into a thousand other groupal or institutional social discretenesses. The process of contacts and influencings in and among the physiological-psychological persons may, under a constructive separation of process and content, be called the " pure " functional psychology. The " content " phases are all social, historical, evolutionary, cosmic, down to the last specifications of feeling or sensation. We thus have in the social space our region of psychological investigation ready for clarification and development. In this space we have neither the individual appearing " in his own right," nor the institutional appearing " in its own right," but we have the phrasing " in his, or its, own right " cancelling out on both sides : and we are free to take either aspect as " fact " and as base from which to investigate the other.

WHEN we have become able to use the term social space as a direct expression of the general form of social procedures, we must be prepared to find many social spaces which must be analysed and interpreted with respect to one another. Let us consider the description " specified social place " as I have used it in connection with " specified social time "[26] in the definitions of vulgar spaces and physical spaces

[26] A development for the term " social time " in its relation to " clock time " or " calendar time " or the generalised " geological time " within which evolution on the earth is assumed to be framed, would run parallel to that for social space, and would be an important component of a general sociological construction. It lies beyond the special purpose of this paper, and I content myself here with recommending for serious and protracted study by all believers in the stability of dogmatic one-way calendar time as the basis of sociological theory the following shrewd inquiry by the physicist, Percy W. Bridgman, in his LOGIC OF MODERN PHYSICS, p. 78 : " It is amusing to try to discover what is the precise meaning in terms of operations of a statement like this : ' It is true that Darius the Mede arose at 6.30 on the morning of his thirtieth birthday.' "

in Section 1. Both of these terms are very much richer and more real from the interpretative sociological view—if not from the dogmatic vulgar view—than are geographical place and calendar time. These latter are but clues to the true social times and social places: they are constructions of society to aid it in carrying on its work, and they derive from social experience as that covers and includes all physical nature. They are very useful for the special studies of physics, though their usefulness was found in the end to have bounds: they are very practical from the local point-of-view within the range of a man's physical movements and life-time: they are useful and practical indeed in much wider ranges than these latter, but with notoriously decreasing usefulness and meaning the further they are carried, whether in finite or in infinite extensions. To refer again to Newton and the space-thing, as Einstein has characterised it, we do not now have to connect the appearance of the latter in knowledge with a certain calendar date in the life of a certain man in England. It is not gauged by a clock moment or a parish boundary. It has its rise in the life of Newton and of many men around and before Newton, and the calendar gives only a crude clue to the description. We do not have to wonder how it was that the " same " thing or something similar appeared elsewhere, or before or after: but we can identify this transition as fact in society, taking either the scientific or the vulgar development for primary examination as " thing," and letting it itself —along with other presentations similarly investigated—be a measure of social times and social places, with the clock time and the geography as convenient aids to, but not certainly reliable frames for, our knowledge of what happened. We may express this also by saying that the important, the interesting, the vital aspect of this social development and of any other is not the calendar date, nor the geographical locus: and that these latter are but incidental formulations of the real social times and places. Social speeds are not clock speeds: social expansions are not held firmly to national or physical boundaries: however well the clock speeds and the boundary measurements may be read over upon them for whatever they are worth.

We have now presented social space as a " fact " of society which is broader, richer and more comprehensive than the narrower physical space constructions. We have illustrated this in the case of phenomena of the type commonly called institutions, we have shown how the full procedure of the individual member of society can be assimilated under this spatial form, and we have given concrete meaning to the term social places, and along with that to the term social times, in the society. Much other illustration will readily suggest itself, such as caste and class, the phenomena indicated by such phrases as " the working class mind " or " the capitalist mind," or by religious and racial antipathies: though of course in our presentation such words as " mind " and

" antipathy " which arise from the local point-of-view are deprived of their pretence to explanatory value, and are taken as mere indicative names for situations in the social space.

In all of this description, barring the express construction of social space as fact, I have used a manner of envisaging social phenomena which is common to all of the sociologies. It is the " objectification " of social situations for study: and without such objectifications, implicit or explicit, there would be no sociology unless as a minor subdivision under psychology or physiology. What is essential in the present description is not the term " space " itself as here used, but the extension of the social objectification, the social envisagement, so as to bring the full range of study into one system or field. Nevertheless, the term " space " is the proper term for scientific use to-day, though it would not have been the proper term a hundred years ago. Its definite applicability is of course the purpose of this entire essay to show.[27]

The obstacle to its acceptance, and the understanding of the present development, lies in the implications of externality and internality in common language, in psychological theory, and more particularly in the phraseology of that which we have discussed as " vulgar space." Into this region of difficulty we must now enter with greater detail.

We have before us social spaces as fact. We have also before us linguistic procedures in this social space which present a physical or natural space as if outside of, external to, or prior to, all society, and which thereby proclaim this physical space as basic fact, with respect to which the social spaces are mere incidental descriptions, relations or products. How are we to handle this conflict?

To begin with, of course, it is handled by scientific hypothesis. Without interfering with the basic physical hypothesis for its own uses,

[27] The reader may test this construction on the basis of his personal experience and methods of work by preparing a list of customary forms of description, and examining these for completeness and consistency. Suppose he takes for consideration the presentation of The Government as an institution. He will note the possibility of its investigation under various linguistic frames, including, among others, the following: (1) a construction, under one of the sharper forms of behaviourism, of atomistic stimulus and reaction: (2) the vaguer descriptive stimulus-reaction treatment of some popular modification of behaviourism: (3) a construction of personalities, types, temperaments and motives: (4) an objectivation as social: (5) an expressly postulated social space. There is apparently no objection to the use of any of these frames. The problem is, how well do they do their work, how well do they serve the more general purposes of knowledge? Ask now in what sense the Government " exists," or is a " fact," at a time at which all of its ministers are asleep. This is a crude, almost childish, form of inquiry, but from its very crudity one can readily advance to the more significant formulations of the issue. Is the government the separated responses of its members? Is it a bundle of personal psychologies? Or is it a social continuity? The best answer will not be the one that best fits current conventions of language, nor the one that most strongly insists on its own " truth " or " reality," but instead the one that is most efficient and comprehensive for purposes of investigation.

I have simply shown reasons for, and asked the privilege to employ, a different hypothesis for other uses. The solution therefore will be given solely within the limits of this different hypothesis. The linguistic systems, passing from a presumptive stage of early naïve word-thing confusion, through the Socratic, Platonic, Aristotelian development, settled down to a two-thousand year long status in which it was assumed that it was possible to identify and establish basic terms which directly presented or represented basic facts. But this system, and all of its included systems of meanings, are social procedures or products. All the fact-thing references and all the externalisations it includes are socially developed and require sociological examination. We have then merely to make a provisional, interior, sociological distinction between spatial attributions " external " to all that men do and are, and the attributions of spatiality to the socially spread out men themselves. Whether now the externalised spaces are to be interpreted in terms of the social spaces, or whether the latter are to be interpreted in terms of the former, becomes a problem for long investigation and careful appraisal, not for dogmatic determination in advance. The way is left open here for either outcome, but the study is made under the first of the two constructions.

Beyond this particular case the very distinctions " internal " and " external " in any and all of their generalisations are socially produced, and seen in social variations, transformations and developments across the ages. It is the crudest of errors to assume for the general purposes of all investigation that the particular form these distinctions most commonly take to-day is the ripe fruit of knowledge and bound to survive for all future ages. This present common form does not belong at all to the Greek point-of-view. It has had various intervening forms. Taken in psychological rendering, in which the human mind is the " inner " and the physical world is the " outer," the apparent consistency of these terms broke down with the very beginnings of sociology : for even in these beginnings situations were clear which were " outer " to the individual " inner," and yet not parts of the physical " outer." The paradoxes remain unsolved by psychology as a science, and they are accentuated by the recent developments in the region of radiation and electrons by the science of physics. In their present confused state they have no right, either directly or by implication, to presume dictation to the experimental development of sociological knowledge. Practically we may always use " inner " and " outer " as we need them, if we keep in mind primarily our hypothetical construction of one great system or field of investigation which includes them both. To a special presentation, a particular discreteness, brought before us for study, we may identify its inner characteristics and contrast them with that which is outer to the particular presentation. In all such cases the linguistic value of the terms

must be read in accordance with the full context, including its full postulation, and not dogmatically. In geometry such terms are freely used without miscomprehension: and in connection with them two forms of boundary have been found necessary in point set theories, the boundary which closes a construction, and the boundary which limits it without belonging to it. We are faced no doubt with even more complex situations in sociology, but the attack must be by refinement of precision, not by confused dictum.

If one inspects the various theoretical sociologies with reference to the use of the spatial form, one will find many approximations to a presentation of social space, whether the term space itself is definitely employed or not, and even where that term is defined in sharp contrast to the manner in which it is used here. Simmel, for example, writing twenty-five years ago, used the term space (Raum) expressly for "fact" in three Euclidean dimensions, and regarded space as a non-active form under which all social process was before us. Nevertheless, it was just this non-active space (with its peculiar characteristics that each particular locality within it is so fully set off by itself that it cannot be called "the same as" any other locality, and that it cannot be grouped in a collection for which a plural noun-form can be used) that made possible for other objects the presentation of a plurality of fully identical samples.[28] He set up as criterion for the establishment of a science of sociology as distinct from the special social sciences the practicability of the identification of common forms of socialisation, recurring in all departments of social life, and consequently recurring in each of the separate social sciences. He distinguished thus, sociological forms[29] from the psychological contents of the special social sciences, as an abstraction justifying separate and peculiarly sociological study. Under the expansion which the term space has taken since the date of Simmel's writing it is clear that his whole presentation of social activity and process is itself spatial in this wider sense, so that his many brilliant interpretations of social phenomena are ready for use in full social spatial organisation. So for him it was not the geographical boundaries or the area in square miles that identified an empire, but the nexus of social interactions by means of which the area and the boundaries took form.

In America where sociological interpretation presents itself so largely as "psychological"—in other words, where crudely snatched morsels

[28] Soziologie, pp. 460-462.

[29] A recent criticism of Simmel, published in a series issued by one of the greater universities, proposes to "refute" him by declaring, first, that forms cannot be isolated from contents, and second, that he actually used much psychological material in his social interpretations. Such complete miscomprehension is just one more evidence of the vital need of deeper linguistic and factual analysis in this field. Simmel's distinction of form and content is in contrast with the suggestion in this paper that content may best be considered as sociological, with process as psychological: but either construction is a permissible postulation for experimental development under semantic approach.

of society are detached under individualised forms of language, and naïvely regarded as individually " psychic "—the trend is to degrade the consistency of whatever social spatial presentations come to be recognised. Some theorists, introducing the term " social distance," see substantially nothing but characteristics of remoteness between inner psychic states of persons realistically taken. Others, affected by the ecological developments of biology, attempt its reproduction in sociology, but soon find themselves with nothing more than an external geographical frame within which they attempt to localise various psychological characteristics or behaviouristic situations.

VERY different is the development of Regional Sociology, originating with Geddes and carried forward by Mukerjee. Mukerjee presents " the idea of the region as an intricate network of interrelations," in which " man is part of the processes by which the balance of the region is maintained or shifted."[30] If one reads this language postulationally in full functional value it yields a fair statement of social space-time in the sense in which I have used it. If, however, one stresses the term " part " realistically as if separate " parts " could be fully identified,[31] it yields either a descriptive approach to the position here taken, or else a sharp deviation from it, depending upon the degree of dogmatism with which the " part " isolations are stressed. Mukerjee's latest expressions record a distinct advance over the positions taken by him in his book, REGIONAL SOCIOLOGY,[32] where he specifies as components of his construction, first, the intertwining of social, economic and political life, second, Professor Geddes' development of Le Play's scheme of place, work and folk, and third, the application of social anthropology and collective psychology, these materials not yet appearing as well fused in his thought.

THE status of sociology as Professor Geddes sets it forth in his well-known organisation of the materials into three great groups, bound together functionally in time and space, furnishes, I may perhaps venture to say, the one essential scientific background within which such a construction of social space as is here proposed may be attempted.[33] The differences are those of stage of investigation and of immediate purpose, not of attitude of approach. Comparisons are not easy or exact, but one may perhaps think of a full descriptive presentation of the organised knowledge of the heavens in contrast with the work of astronomical physics, or of the more general syntheses of biology in contrast with the full physiological-chemical-electrical-radiational investigations of that science: but this only as though in

[30] " The Regional Balance of Man," AMERICAN JOURNAL OF SOCIOLOGY, November, 1930.

[31] For the difficulties of part and whole, see end of Section 6, following.

[32] pp. 235-6 (1926).

[33] See the citations in a footnote to Section 2 preceding.

each case we had obverse and reverse aspects of the same field, each aspect aiding the other, and neither having assurance of priority so far as the future of knowledge is concerned. The heart of the matter is the full functional comprehension. More and more does it appear, as one follows this route, that when one sets up a certain specification of organism and a certain other specification of environment to it, he must be prepared soon to find these specifications inadequate, and to carry his analysis further by breaking down his first forms, not in the sense of showing them to be wrong, but rather in the sense of showing them to be incomplete : pproximations instead of primarily established factual isolations. It is just one attempt under this background and in this direction that I have to offer in this paper. In the next section I shall consider some of the possibilities in the use of co-ordinates for social knowledge, and the relatively " concrete " scheme, Place, Work, Folk, undoubtedly provides a very useful set of co-ordinates for such purposes : but when Professor Thomson, adopting Professor Geddes' scheme, compares it with Descartes' mathematical co-ordinates and with " Darwin's biological co-ordinates," and rigidly insists that " the sociological co-ordinates *must* remain Folk, Work and Place, and the *whole* of sociological inquiry *must* be in that framework "[34] he distinctly outruns the type of statement that is theoretically permissible, considering what we know of the historical development of human knowledge, and considering the future possibilities we are permitted even now to envisage.

TURNING to recent German sociology, the development of L. von Wiese is the one most fully in accord with what is here attempted. Taking his initiative from Simmel's presentation of forms of socialisation, as do all of the more important recent German sociologists, Wiese stresses as fundamental the immediate and direct observation of a realm of social facts. This is his " soziale Optik," vital to his entire work. Differing from the present approach, however, he co-ordinates the social realm with the physical and psychical realms : accepting these latter as he finds them in their respective lines of scientific investigation : and demanding only for the social its full right to its own independent investigation, on a par with the others. In this social realm he finds possibilities of measuring and counting : and these not as mere borrowings from other sciences, but as peculiarly social techniques. It is these possibilities that justify a separate science of sociology : and because of them he asserts the existence of a peculiarly social space, " den sozialen Raum." He defends this construction of social space strongly against attack, without however proceeding to a fully functional analysis of it in system with physical space and with the psychical space presentations.[35] The physical

[34] WHAT IS MAN ?, p. 135 (italics mine).

[35] ALLGEMEINE SOZIOLOGIE : Teil II, GEBILDELEHRE : pp. 10-11 : p. 44.

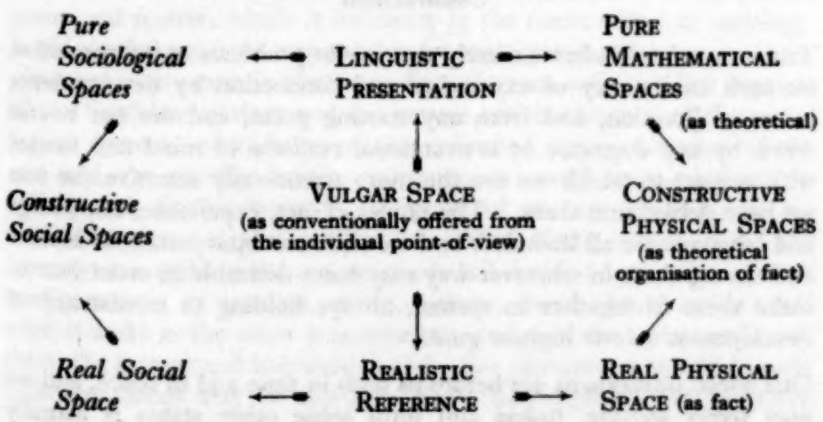
space therefore appears in his interpretation as an outlying or indirect "cause" of happenings in social space, and not as an intimately involved region of the full sociological investigation. Wiese's programme is for the most complete possible study of the social system, the social space, in its own terms, with incidental drawing upon the physical and the psychical when and as needed. His work has yielded what is in my view the most important systematic sociology that we thus far possess: and the argument with respect to it here is merely that further generalisation is practicable and essential for increased efficiency. Wiese's own insistence on the importance of homogeneous procedure is just the basis for such further generalisation.

6. *Sociological Spaces as Mathematical.*

ASSUME now that we have before us society in its own spatial form, so that either we directly sense it (as some of us can) in its factual spatiality, or else (as others of us may) we recognise in varying degrees the possible or practical helpfulness of such a construction in investigation. Our next question will concern the manner of analysis of social spaces, and in especial the suggestion and aid which the existing form of mathematical analysis may give to sociological procedure. Only the briefest sketch of some of the possibilities may here be attempted.

IN order to protect the procedure from misinterpretation I shall first indicate the way *not* to envisage it. The two following figures are to be regarded as merely schematic and illustrative, and not in any sense attempts at theoretical completeness.

THE WAY *Not* TO PROCEED.

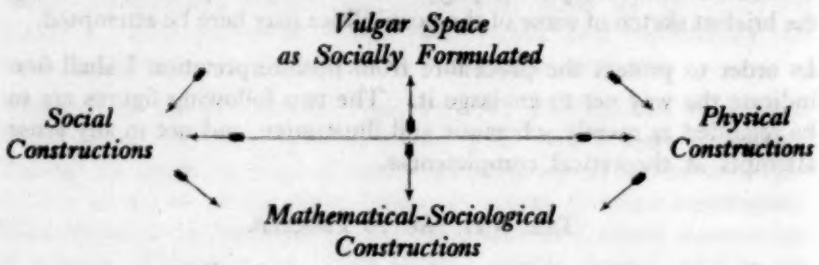


THE right hand capitalised terms exhibit the existing scientific organisation on the physical side. The left hand italicised terms represent a presumable replica on the social side. No such replica is here

sought. The right hand construction is shot through with speculative difficulties. The left hand construction would be no better. Each of the arrows indicates an epistemological or psychological difficulty, concerning which we may say that none of the theoretical interpretations offered us " make sense " at all. To the right hand construction, taken for itself, any sociological interpretation, or any attempt at one, is folly : and indeed to it " society " as a term or presentation becomes little more than a linguistic crudity or malady which is greatly in need of curative treatment. To the left hand construction, presumably, the physical world as a presentation would itself be a somewhat similar type of malady. Both physical world and social men require however scientific investigation and interpretation, and a construction of rival abnormalities is distinctly not one which promises to be helpful.

In place of this consider the following, similarly schematic, figure in which the speculative difficulty of the arrows is absorbed into the field of technical or scientific-hypothetical procedure under the control of standards of linguistic consistency.

A Hint at Procedure.



The arrows here indicate merely that in our problems of interpretation we seek consistency of expression and connection by developments in every direction, and from any starting point, and are not bound down by any dogmatic or conventional realisms of mind and matter with respect to which we are the more strenuously assertive the less we have delved into them. The ranges of fact, experience, knowledge and language are all included, and we slide our interpretations around and among them in whatever way may seem desirable in order best to make them fit together in system, always holding to consistency of development as our highest guide.

Our social phenomena are before us both in time and in space, and we may freely assume, unless and until some other status is actually shown us, that they are never before us in the one without the other. If we have exhibited social space as a fact, and indicated how a corresponding development for social time as fact may also be made, we are ready now to combine the two in social space-time as fact. We do

this without any dependence on any realistic presentation of physical space-time as fact, without any direct use of any physical space-time, and without consideration of any of the speculation which has accompanied the development of physics in the last twenty years. If realisms of fact are sought they are undoubtedly mush easier in the social range than in the physical, but the matter of ease or difficulty is merely one of breaking through conventional uses of language, and of no further importance. We are in no way interested in the realistic developments, but solely in the possibility of dimensional development in sociology analogous to that dimensional development in mathematics which, as one of its special instances, has combined geometrically a time dimension with three space dimensions or more.

In this social space-time we set forward the individual men, the groups and institutions, and the societies or society, as components of one system: and we have already noted their various discreteness and continuities and possibilities of social mensuration as space-like characteristics. This space is of course extremely complex, and when one seeks mathematical aid in dealing with it, it is not in a geometry of greatly specialised type like the Euclidean that one may expect to find it. Nevertheless, even an Euclidean geometry has characteristics comparable to it which it is worth while to display.

The essential in the development of Euclidean geometry was the systematisation into one linguistic and symbolic system of all the necessary elements.[36] The area, the solid, and the line segment, were organised under the same degree, or presumably the same degree, of " abstraction " with that of the point, and of unlimited space extension. It is just such common linguistic organisation of individual, group and society, which is necessary in the construction of sociology. In this background we may note, as an analogy and not more, a correspondence in presentation between, first, the area, solid and line segment of the Euclidean system and the groups and institutions of the sociological system: next, between the unlimited space extension of the one and the socially infinite extension in social space-time of the other: and, finally, between the point of the one system and the individual personal participation or activity of the other. What the investigation seeks in the one system is full detailed knowledge of such configurations as triangle, circle, sphere, icosahedron, conics: and what it seeks in the other is similar knowledge of the social configurations, the groups and institutions and other phenomena to which more technical names may be applied. From this approach the operative

[36] Or, more precisely, of what passed at the time as all the necessary elements. We know now that not only was there a confusion in the axiom of parallels, but, further, that various operative elements were forced into the background and remained a region of uncertainty. Any use whatever of such a term as " all," considering a " future " for the human race and the possibilities in the development of knowledge, must allow for similar fringes of uncertainty.

constructions which the one uses are point and infinite space, and those which the other may comparably use are individual and society.

THIS is suggested merely as an analogy, but it is an analogy of the helpful kind, so far as it reaches. The " individual " so taken is of course not the impacted, solidified, concrete " soul " or " living mentality " or " personality," but the activity-point in social participation. There is a different form of analogy which is used in current psychological interpretation where the individual is made the reality and the society a mere relationship. This is an analogy with the realistically taken Euclidean point—a form in which the latter is very frequently taken, despite all protestation. It may even be suspected that the person as " unit " in practical life, in psychology and in some sociologies, has been constructed in large measure under the influence of the presence in knowledge of this kind of geometrical point: this latter form of analogy, or of derivation, if it is derivation, is both crude and vicious and has never yet been submissive to consistent development.

IN the present approach if we take some institution, let us say for example, the family, what we mean by the family is not a census count of detached unitary individuals of variant age and sex, but a certain nexus of activity, a certain form of activity, a certain social situation, which we can hold before us and inspect as a phenomenon or fact, or thing, for the purposes of our study. It is of course true that every bit of this activity is capable of statement in terms of individual lives. If we so desire we are entirely free to state it in this latter way, but when we do, we do not put before us the " family " as a specific phenomenon or social " thing " at all: and long experience has shown that in this case we get nowhere with our desired scientific analysis. We find that we require the social form of statement also. But this social form of statement never yields us the family as a " thing " which we are enabled to regard as external to the individuals who compose it, in the way in which we are perhaps able to regard a wooden tool as external after the man who made it has laid it aside. The family is a thing, which, as " thing," is composed of individual participations in, of, and as, activity. When so taken, and only when so taken, the individual participation may be regarded as a point-like participation of the social configuration, the family, in the social space. And the whole construction involves and requires that joint organisation of thing, relation and operation in one common system, which was discussed in Part I., and which was established as semantic under special postulation appropriate thereto.[37] So that, if any particular projects require a different construction of thing, we are free to take either the society as a whole or the individual as a person for our basic thing,

[37] This construction also of course requires a comparable presentation of the individual physical body as in system in its environmental and evolutionary setting.

from which to develop other phases of the system. This again is just what the axiom-makers of geometry have done, using alternatively relations, things and operations for their basic points of approach: sometimes taking points, sometimes motion, sometimes line-segment, sometimes sphere, sometimes order, sometimes inclusion, more often selections and combinations of these for theoretical basis of attack.

Now the Euclidean geometry was the development of a special local point-of-view in the sense in which we have previously used that term. This local point-of-view was that presenting the surrounding objects or bodies in a way which was readily basic to a relationship geometry of three dimensions and parallel straights, the whole situation being linguistically set up, and linguistically characterised as " real," with the geometry, itself linguistic, taken as correspondingly or representatively realistic, no matter in what way its propositions were specially called " abstract." In these realistic characterisations this situation and its included geometry may be compared with the prevailing local point-of-view as to human beings which takes the individual mentality, despite the fact that it is always before us in its full socialised imprint, as " real "—as an " inner " real—and depends upon it psychologically to dominate all description and construction. The geometries of mathematics have long passed beyond the stage of such one-way abstraction, of such one-type realistic presentation. The historical steps in the transition are well known. The realism was taken out of the parallel axiom and certain non-Euclidean geometries were constructed, but that was only one of the details of the development. Long before the Cartesian co-ordinates had appeared and facilitated functional interaction and co-operative development with algebra, Riemann discovered new cases of non-Euclidean geometry, and secured a new generalisation for them all, while also originating the investigation of analysis situs. Möbius set up " elementally-related " configurations, and identified among them the one-sided surfaces. Grassmann proceeded n-dimensionally. Gibbs gave the vector its strong form for the use of physics by the aid of Grassmann space, establishing it fully as a mathematical " object " in its own right. These, along with many other innovations, including the appearance of the newer non-Riemannian geometries, have made geometry a possible form for all physical knowledge, so that finally we arrive at the present stage of search for some unified field theory. All of this greatly widened procedure, and all of its possibilities of further extension are at the service of sociology, the instant that sociology can grasp its full field of materials in postulatory unified system for its work of investigation. The popular phrase " qualitative," as applied to certain of these geometries, in contrast with the older " quantitative " geometry, while of no direct linguistic value itself, is indicative of their possible scope.

USING the labels " abstract " and " concrete " for what little they are worth, we may inspect the presentations of discrete material things as concrete, the Newtonian physical space as a first abstraction, to which a concreteness or realness of its own came to be assigned, and the Euclidean geometry (although historically of earlier appearance than the Newtonian space) as a further abstraction. Using the presentation of discrete psychic men as concrete, we may similarly regard social space as an abstraction to which concreteness or realness may be assigned, and a possible formal development of this space in sociological space-configurations as a further abstraction.[38] Our proposition now is that the many geometries arising out of the primary Euclidean construction have so far generalised themselves that they have the promise of applicability to sociological work. Such an inspection, however, cancels the terms abstract and concrete, grasps all the developments which we have before us in one general linguistic-theoretical form, and seeks wholly consistency of interpretation, leading over from the first to the second diagrammatic scheme shown at the beginning of this section.

IN this background we may examine the value of the constructions of dimensions and co-ordinates for sociology. It is common for sociologists to say that society is a many-dimensioned field. What the social dimensions are, or more properly what the most important social dimensions are for any specialised line of investigation, is our sociological problem in general. The search for precision in their analysis and use is the sociological space problem. Dimensions in this sense, though not under that name, have long been sought. A sociology setting forth individual, family and state as basis for its interpretation uses, in effect, these three presentations as dimensions. Sociologies using basic human desires or instincts, or in a more elementary form depending on temperaments, take these factors for dimensions: they do not call them dimensions because they take them realistically, concretely, as forces or agents: but for us, seeing such materials as abstractions and crude preliminary abstractions at that, they have the dimensional meaning. A theological system in terms of Deity and souls is dimensional, with variations in its additions of principles of Good and Evil, and of cosmic setting. Systems of Law of Nature, personal liberty systems, even school histories biased by national pride, have dimensional setting in this sense; and so also such fantastic devices as the " Nordic " for the organisation of social knowledge.

[38] One may compare Carrel's remark in the article elsewhere cited that the cells and tissues of the older histology are abstractions, and that what the new cytology proposes is a truer abstraction. This manner of seeing, when applied to our own problem, spreads the label " abstract " over material things, and psychic men as well as over interpretative constructions of them. Carrel's insistence on the return to close observation of the " concrete event which a tissue is " is paralleled for sociology by a similar return to observation of the full complex of man-society-nature as the sole " concrete " for its reference.

THE term co-ordinates describes a kind of instrument of precision for the study of dimensions and configurations. In a realistic background of mind and nature with a dogmatic rendering of abstract and concrete, and a pervading vagueness as to what language is and does in such a setting, the co-ordinates of geometry have nothing to do with sociology. In the full linguistic setting and under the semantic search for consistency covering mathematics, physics and the social sciences as well, systems of co-ordinates may be aimed at in social spaces with exactly the meaning and value they have in mathematics. For co-ordinates in society we may choose one, or two, or several structural lines which we obtain by analysis or hope we are obtaining. We must then establish them by definitions in which all the elements are confined closely within one system of expression and study. The procedure might be somewhat as follows. In a given region of social space-time, say Europe-America from the consolidation of nations in Europe to the present day, select some characteristic which can be held to close definition as a first co-ordinate: then select some other for a second, and lay off a two-dimensional study, seeking whatever patterns may be found. Suppose for a clue to a first co-ordinate we take the term cruelty. We inspect not a psychic quality, since no such quality ever has been defined in such a way that a man can be found who is wholly or purely cruel by its terms. We inspect instead social manifestations which under some psychological scheme might be attributed to some instinct or attribute of cruelty, but we inspect them as though the alleged instinct or attribute was itself an abstraction and a poor one at that, and we undertake in place of it our own form of abstraction. We analyse, finding cases in which one man inflicts physical pain directly upon another man: cases in which one man, say a ruler, inflicts pain through an agent, his gaoler, or executioner: and other cases of a still more indirect nature as where an employer, paying starvation wages, inflicts pain on his employees. In all this, exact definition for the immediate purpose of even the term " physical pain " must also be sought. We may find other cases where the pain takes less and less a " physical " description, and more and more a " mental " description. Selecting one such definition, or combining several into a wider definition, we may establish spatial and temporal transitions in amount or intensity: and thus have a kind of social co-ordinate. For a second co-ordinate one may work similarly in terms of wealth, industrial organisation, church membership or religious intensity. One has then two lines of guidance through the social space-time, and may begin to establish configurations, or clarify configurations taken as found in ordinary vague discussion. In all of this one enters no field strange to sociology. What one does is to grasp all of his materials in one system, one social form, strip off irrelevancies, confine his procedure to postulation, and seek precision.

He gains accuracy in factual control, but sacrifices dogmatic insistence on validities.

SUPPOSING now that upon the basis of numerous such studies as that suggested above we have established a number of dimensional lines for the organisation of our social knowledge. The desire will be always with us to bring them into higher synthesis, and search will be made for correspondences, and, in especial, for characteristics common to the configurations which appear under different dimensional organisations. Here we will begin to work in a field which in a humble, tentative way is comparable to that of geometrical transformation. In geometry invariance under transformation is the highest assurance of firm texture of investigation. The very remoteness of sociological study from such firmness of texture is a reason why it must be characterised as sociological, and not as itself mathematical, no matter how well the mathematical precedents may aid it. Again we have nothing before us that the sociologies have not already attempted, but we have the problems stripped down for closer interpretative study.

ONE special case of such sociological transformation between coordinates may be considered. It is that already indicated in Section 3 as necessary between descriptions in terms of vulgar space and alternative descriptions in terms of social space. The ordinary language of description, in which the raw materials of our sociological studies come to us, may be said to have as its dimensions Newtonian space, clock or calendar time, and the individual mind or person. The last of these is taken as an activity in contrast with the other two which are regarded as comparatively inert; and the inadequacies and inefficiencies in its use have been repeatedly emphasised. Here we merely accept it as before us in current language, and as the main tool of that language for orientation of its reports in our particular field. Treating it in this way as one system of expression among many, as merely one possible set of sociological dimensions instead of as true and solid expression of reality, the development of a method of transformation from one type of expression to the other presents no difficulty. The essential is, as always, the stripping off of the crude realisms, and the substitution of consistency of expression as standard and guide: the abandonment of the superstitious belief in the magic power of conventional words as revealers of reality, and the substitution of the cold requirement that the "magic" either transforms itself into full consistency of meaning or quit the field altogether.

ON this basis we may now introduce numerical factors, much as geometry introduces them, for what they are worth. They are worth a very great deal to geometry, despite the fact that general mathematical analysis has not yet solved its own foundation problem as to just how the discrete number is to be interpreted in terms of the continuity

point. Mathematics inserts a dictum to this effect, and the same can be done in the sociological study of social spaces. If one wishes, for example, to use census returns or other enumerations or estimates gathered under a Newtonian space form, one may apply them for what they are worth, for whatever value they may have in the presentation. In general the Newtonian space presentations may be brought over into constructions of social spaces as aspects of the system instead of as fixed exterior conditions.

I SUSPECT now that a reader who has his footings in the older natural science and the older philosophy and psychology will make indignant protest to the effect that while the talk is about space and geometry the illustrations are all drawn from "activity" which he takes to be a category of wholly different nature. The immediate response to such a criticism is: "Consider the vector." I shall try, however, to make the situation clearer by a brief analysis of one of the most difficult problems in the range of scientific consistency, the problem, namely, of whole and part.

AN individual is in one sense "part" of society: social life is, in another sense, "part" of individual life. In the first sense no man can say what the "whole" of society is: in the second sense no man can say what the "whole" of individual life is. The very terminology of parts and wholes is, in these applications, shot through with inconsistency. It has a certain reasonableness in middle ranges, as where we say that a judge is part of a court, or a court part of a government, but it has no consistency at all in generalisation.

BUT do we have anywhere at all in the field of knowledge an interpretation of part-whole which is throughout consistent? It is very much to be doubted. Part-whole is just another way of characterising those problems of mathematical foundations which were discussed in Part I. of this paper in terms of finite-infinite, discrete-continuous, one and all, thing, relation and operation. In mathematics, if anywhere, we should find consistency of meaning, and in mathematics exactly it is that the problems of consistency have become most desperate.

"QUANTITY" would at first sight seem a dependable tool for a construction of part-whole: but quantity proved so useless that it has long since been discarded by mathematicians for any of their more general purposes.[39] In a system of natural number, 1, 2, 3, . . . n, we have a system of specific defined parts, and of constructed relational wholes, so long as we hold to finites: the moment we proceed to the infinite whole of natural numbers, we have a confusion. Quite to the contrary with geometrical areas: here we take a presentation that we regard as a whole, and we can readily subdivide it finitely into parts, but

[39] Russell, INTRODUCTION TO MATHEMATICAL PHILOSOPHY, p. 195: Weyl, PHILOSOPHIE DER MATHEMATIK UND NATURWISSENSCHAFT, p. 50.

when we proceed to the infinite subdivision our point-like part is a new order of presentation, and not a consistent part of such a whole as the kind we started with. When the mathematicians, as the result of the introduction of Alephs and Omegas by Cantor, were forced to closer consideration, they developed various logical interpretations, the Mengen and the Elemente of the Germans, the classes or sets and the members of the English. The result is seen in Russell's paradoxes of types, in Hilbert's Stufen, and in various dubious expedients and compromises such as Brouwer's private and peculiar version of the excluded middle and Fraenkel's Beschränktheitsaxiom.

If we pass to the part-whole problem of animal life, we find it in terms of anatomy and of physiological chemistry on the one side, and of vitalisms on the other: and the issue is still a highly speculative and temperamental one for biologists, nowhere approaching scientific precision in its treatment. In the social field we must expect our part-whole problem to be still more complex and difficult. We so find it: but, further than that, we find that it is a problem which can in no way be evaded, if our investigations are to secure any consistency whatever. We cannot proceed in physical terms. We cannot proceed in terms of pure individual psychology. We must face our situations in their direct part-whole presentation. Much more intricate than the problems of mind in body are the problems of sovereignty in government, of government in society and of society in men. To handle them we must carry our constructions backwards and forwards, so as to include and interpret at the same time the many other part-whole situations of the many other investigations and sciences which are themselves social developments. The mathematics of sociological investigation must therefore be a mathematics of social activities, and not of some rigid presentation of society or of individual man, and of physical and psychical nature, as separately identifiable facts or parts.

An important work in one of the more highly developed fields of sociological investigation, namely pure economics, may serve to exhibit very clearly the possibilities in the construction of sociological spaces, although it is far from the thought of its author to recognise any such possibilities: his attitude being rather that he and his fellow mathematicians and economists have succeeded in isolating a region of sound knowledge, a region which should be carefully kept clear from all the vague strivings and yearnings known to him as sociology. This is Professor Griffith C. Evans' book, Mathematical Introduction to Economics.

Professor Evans does not make his start with any assumed characteristics of human beings, nor with any dogma of society. Instead he sets before himself certain presentations, such as commodity, cost, quantity and unit of time, and examines them under certain defined

hypotheses for three central economic situations, namely, monopoly, association and competition. He secures for his investigation certain dimensions, namely, money-value and time, and for each commodity a dimension of that commodity, quantity: and sets up the heuristic principle that under these dimensions laws may be written invariant to a change of units. He at once gets rid of "wealth" in the sense of a total of material things, and of "pleasure" in the sense of a possible psychical maximum. Neither the pleasure nor the material things are dimensional to his study, and both may be passed over. In other words, what he in effect does is to take direct "social" presentations as his material of investigation and as his basis of study, and to discard entirely, as lacking significance for his purposes, all of the physical, and also all of the psychical, forms of characterisation. He thus develops formulas for situations concerning taxation, tariffs, rent, foreign exchange, interest, the equation of exchange and price indices, directly within the range of his chosen data and dimensions. It is not until two-thirds of his book has been written that he pauses to ask questions concerning "general concepts and methods," and when he does come to such questions in his Chapter X., his essential observations are: Do not hope to gain generalisation by creating complication; seek it instead by examining the limitations of the various theories, by clarifying assumptions, and by the systematic separation of different economic situations. To stress "bases" or "springs" of economic action, he points out, leads to attempts to organise them through unification, and unification under any such term as "pleasure" amounts simply to cancelling them out of the investigation altogether. With this once clear he offers a brilliant discussion of utility in fully social terms: and only upon this basis, and as a very special case, does he examine marginal utility and the conditions of exchange between two individuals. His more general theory, in which he makes use of functionals, very significantly studies economic systems in compartments, with that compartment or set of compartments relating to money as one of the most important.

In all of this we find Professor Evans working within the frame of an economic space-time, and in a way that fully accords with the approach set up in this paper: and in such construction and development he represents not some peculiar aberration of theory but the consistent forward advance of pure economics. We do not, however, find him recognising that what he is doing in economics is exactly what must be done in all departments of sociology, nor that the economic space-time which he uses is just one particular specification of a much more general system of sociological space-times. All sociological investigation that is outside of his own field he is content to relegate to practitioners of a wholly different kind of inquiry, in which the discarded "springs of action" "pleasures," "mass psychology" and other

psychological presentations may be manipulated in any desired way, for all he knows or cares. But economics is social, and so also are all the other investigations of society, and what proves the efficient treatment in the one will most probably prove an efficient treatment in the others, regardless of the extent to which it, at any particular stage, may be advanced. As it is, Professor Evans leaves his economic construction as though it may possibly be, and indeed very probably is, a pure or absolute human system : although the very thing that his construction next needs is a setting in the wider reaches of social space-time, within which the chosen postulational procedure which establishes his particular economic space-time may be identified. That means the determination of wider social dimensions with respect to which his own dimensions may be organised by further extension of the very methodological approach which he himself uses. In all of such work, the discovery of fact, the development of theory, and the consideration of method, are phases of one procedure : and if that procedure takes now one direction, now another : if it passes back and forth inspecting the psychical from the physical point of view, the physical from the psychical, and both from the social : if it goes in a circle, that circle is one of full consistency of expression, not the vicious circle raised by the implicit realisms of the ancient logic.

THE PROCESSES OF REGIONAL BALANCE: by Radhakamal Mukerjee, University of Lucknow, India.

SOCIAL ecology studies the adaptation of human communities to living conditions. The cardinal subject of enquiry is the adjustment of population to resources. The population of the earth may be estimated as probably 1,820 millions. It is divided into continental groups,[1] as follows:

	Year 1921 (millions)
Asia	1,006
Europe	453
Africa	141
North America	145
South America	67
Oceania	8

THERE are two and only two areas on the surface of the earth, China and India, which deserve comparison with Europe in so far as they support a denser population by intensive agriculture. These three, excluding the thinly settled regions of western China, the table-land of the Deccan, and northern Europe, do not occupy more than one-twentieth of the earth's land surface. Yet they embrace fully one half of its people.

IT has been estimated that 90 per cent. of the land area in Europe is productive; of this 40 per cent. is actually cultivated, 36 per cent. is under grass (meadow and pasture), 19 per cent. is under woods and forests, and 5 per cent. is classed as marsh, heath, fallow or put to other uses. In China out of 1,000 million acres, 700 millions are available for agriculture, the rest being locked up in the form of forests, pastures, forest preserves, pagodas and townships. The percentage, therefore, is 70.0. Out of these, according to Chinese official data, 180 to 200 million acres were cultivated in 1918, or 25 to 30 per cent. In India, 76 per cent. of the total land area is classed as productive. Of this 56 per cent. is under cultivation, 24 per cent. under grass, 18 per cent. is forest, and 2 per cent. put to other uses.

CHINA and India together constitute nearly 36 per cent. of the world's population and yet in these regions the proportion of cultivable land to total area is smaller than in Europe. In spite of this disadvantage, however, the plains of China and India are much more heavily populated than the west-European area. The reasons are not far to seek. These regions lie within the monsoon zone, where the simultaneous occurrence of abundant rainfall and great heat has proved especially favourable to vegetative growth. It is noteworthy that the largest numbers of cereals

[1] Estimate of the International Institute of Agriculture.

and plants now available for human use have been domesticated in these regions. The world's heaviest human concentration has been reached in the deltaic tracts in India and China where both inundation and rainfall have contributed to phenomenal intensification of agriculture. In a warm climate again the standard of human needs is low, providing ideal conditions for growth of numbers. Already the rural density of the Gangetic plain at some places is very much higher than the densest portions of rural Europe, being over 2,000 per square mile. The export of food grains from this granary bespeaks potentiality for further increase in density without disturbing the standard of living of the population.

THE greater the density in rural areas, the closer and more stable is the adjustment of the arts of living to natural conditions. It is for this reason that social ecology can find most important material in those densely populated rural areas where men can maintain themselves only by closest adaptation of crops and farm practices to soil and climate. In the crowded regions of the industrial west, the conditions of living equilibrium are maintained by the importation of food from abroad and the export of manufactured goods which buy food. Among the mass of settled inhabitants in India and China, on the other hand, the ecological organisation is based on the local distribution of crops which governs both the size and character of the human community.

POPULATION seeks food-areas along lines of least resistance. It is the topographical features which govern the main lines of settlement. As in plant communities, we have in human communities stages of *ecesis* or migration. The pioneer settlers represent conditions of mobility and unstability, but gradually a stable living equilibrium is reached. Man selects some plants or animals from among the stock of the region. Instead of exterminating them, he tolerates and nourishes them. At first he burns forests and grass lands, but gradually learns by trial and error to maintain pasture grounds and to devise elaborate rules as regards grazing and the use of meadows. Man thus gradually becomes attached to the land in the fullest sense of the world. Man no longer grows as a cancerous tissue bringing about a parasitic degeneration in his immediate surroundings. He becomes no longer predatory and exploitative; he establishes inter-relations with the plants and animals of the region, and links lives together in reciprocal service and adaptation. This ecological process has continued from the very dawn of organic life and the balance between the organic and the inorganic world achieved as its result becomes of the highest importance in regions where the settled peoples have to cajole Mother Earth for their sustenance.

As a basic principle the appropriate natural regions for intensive studies in social ecology are those wherein the environment operating

for a long time has developed a stable bio-economic balance. An old, historic region like the Ganges plain, for instance, resembles from an ecological standpoint an old forest area far from the haunts of man where time has allowed species and varieties of plant communities fully to adjust themselves to their habitat, and no disturbing factors operate to bring about a new cycle in plant succession. The Ganges Valley may itself be divided into several natural entities where man's cultivation, interests, and habits respond like plant communities to such ecologic factors as annual range of temperature, rainfall or nature of the alluvium.

No better instance of such adaptation can be adduced than the fact that there are altogether several thousand varieties of rice in the Plain adjusted to conditions of soil, climate and the level of flood water. Many of these varieties show such striking adaptation district by district that if interchanged one may not grow at all on the fields where another has thriven for centuries. No doubt great progress has been achieved in the country as a whole in plant breeding. But it has been found that exotic varieties have less chance of success than races isolated from the crops already adapted to the soils.

FURTHER, agricultural research indicates that there is a limitation to the improvement of crops by plant breeding, and that limitation depends upon the indigenous farming practice. A heavier yielding type must make greater demands on the soil, and its introduction should be accompanied by a change in the local system of agriculture, which will enable the soil to regain its fertility. Unless this is done the yield of the new type must inevitably deteriorate until a new balance is struck between crop production and the regeneration of soil fertility. The balance will probably come somewhere about the level of the old yield of the local crop.[2]

SIMILARLY the indigenous agricultural practices differ strikingly from region to region even with reference to the same crops. The stages of agriculture again, are also dominated by the same factors which determine ecologic succession in vegetative cycle. In the Ganges valley man is also remarkably free from migratory habits. Here, progress, including agricultural progress, can best illustrate the complex inter-woven growth of biological mutuality which continuously evolves reciprocal service to the uplift of the entire biotic community.

THE Ganges Plain, therefore, is an appropriate field for an understanding of social ecological principles. Population moving along the course of the river has now been stabilised for centuries in relation to climate and earth factors. There is a likeness in the occupations,

[2] Shaw's evidence, REPORT OF THE ROYAL COMMISSION ON AGRICULTURE IN INDIA, Vol. I., part II.

habits and manners of the people almost as unalterable as rainfall and soil. By centuries of adaptation such close correspondence between the biotic and inorganic factors is established that the fluctuations due to the interaction of the land forms, the river system, and the distribution of rainfall, or the artificial changes which biotic interference inevitably brings about in the ecological complex leads to enormous reactions in human life. The study of the human community therefore in its relations to the sun, earth and water yields for this natural region some important conclusions as regards both social and environmental control.

WHEREVER man has multiplied in large numbers, he must lead a more settled existence and hence is far more dependent upon the animal and the vegetable covering of the earth than elsewhere. His comparative stability allows the climate directly (as well as indirectly through diet and occupations) to exercise its full effects upon him. Thus his physical and mental characteristics bear the impress of the region more than where he is nomadic or at least less stable. A very dense population can be maintained only by agriculture. Agriculture thus leads to the fixation of a social type. But the fixation of man's physical and mental characteristics, his occupations, habits and interests in this manner is not the only adjustment that occurs.

THERE is a similar adjustment of plants and animals to human factors. The selection and cultivation of plants and domestication of animals directly depend upon man's stage of economic development, his economic traditions and experiences. On the one hand, climate, soil and animal and vegetable resources govern materially the economic method and the social life of man : on the other hand, food and type of labour evolve the racial type which can best utilise the resources of the region.

THUS, the region has to be conceived in the light of the inter-play between animate and inanimate nature. It is growing, plastic, fluent, its chief characteristic being the tendency to reach an equilibrium though a shifting one. There are changes in the inanimate environment—changes, for instance, of climates—which are cyclical or occasional, slow or catastrophic, with far reaching effects on plants, animals or men. There are also slow and inevitable changes of soil and topography of the land associated with the natural effects of rainfall or the natural history of the river system. Such changes govern the succession of both plant and animal communities. Then there are changes in both inorganic and organic nature brought about by biotic interferences. Thomson observes : " Wild nature is in a state of moving equilibrium like that of a top. Usually however the oscillation in the old established arrangements of eating and being eaten are within narrow limits, unless man interferes, or unless some big change

occurs in climate and other physical conditions. When there is a succession of hard winters (and droughts) or of fine summers, the ripples may become waves." [3]

But the hand of man, which is often heavier indirectly than directly sets in motion mightier waves. Man clears forests and prepares fields for cultivation; he grazes animals on the hill-sides and uses trees for fuel, for thatching, for tanning and other industrial purposes. All this leads to a change in the type of vegetation. Man not only reclaims the mountain slopes but also redeems the marshes and swamps. He digs wells and canals, builds roads and railways, and seeks to efface the effects of natural features or of the vagaries of climate on his life and manners. He deliberately destroys many wild animals and tolerates and domesticates others. He also introduces new animals from other countries. But he alters the equilibrium of nature often more indirectly than directly. Thus the destruction of the carnivora and the increase of cultivated land mean an increase of the rodent. The multiplication of rabbits rats voles and insect pests involves new dangers to man, and the destruction of birds which keep a check on creatures that injure useful animals and plants also generates new ripples in the pool of organic being.

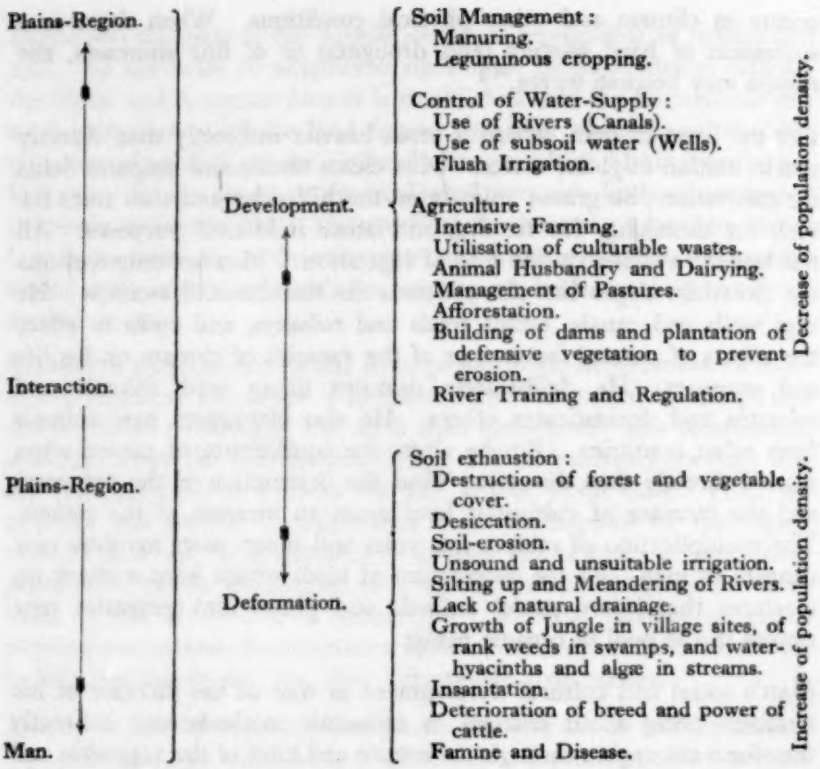
Man's social and cultural development as well as the increase of his numbers bring about changes in economic methods and indirectly transform the region through the nature and kind of the vegetable and animal resources he prefers. Thus there is an increasing process of inter-linking of the living and the non-living world. Man and the region are not two separate factors. They mutually influence each other, and form a natural balance, parts of which can be understood only in terms of the other. Social progress lies in the discovery of the right balance of man's co-operation and exploitation of the ecologic forces of his region. This alone can furnish him with the best material background in inorganic and organic nature, including his own permanent works and products that may serve as the stable physical basis of his optimum efficiency and living conditions.

Under the influence of the human community—itself changing its technique and arts of production in course of time—the region undergoes development or deformation, perhaps reaching a bio-economic climax of development unless rejuvenation sets in through the introduction of new cultural elements.[4]

By the aid of a diagram we may illustrate the moving equilibrium of a region in both its developmental and retrogressive aspects.

[3] Thomson: Biology of Birds, pp. 402, 411.

[4] Compare Sauer: The Morphology of Landscape.



WHERE population shows no progress in the arts of production but multiplies beyond the resources of the region, the arts of living are at first as closely adjusted to natural conditions as possible. But soon the ecologic balance between the natural and the vegetable and animal environment (including men) is upset, bringing about both the deterioration of the region and of human society. Such disturbance of the balance of the region, which affects man's living conditions, is often clearly discernible. Sometimes, however, it is difficult to comprehend the changes which man sets in motion as they break the rhythm of nature in unsuspected ways.

ONE instance may be adduced. For a survey of the problems which confront them economic entomologists now divide the world into two areas, that of ancient and that of modern agricultural practice. The areas of ancient practice—those following the ancient plot system—are free from major insect pests except where the plantation system of cultivation has been introduced. Modern agricultural methods mass insects' food media together, tend to remove competition from certain insect types, and enable them to increase in numbers and so acquire the status of pests. Further, geographical barriers to distribution are removed by the agency of man under civilisation, and the spread of

insects from endemic areas is thereby facilitated.[5] Thus the development of commercial agriculture, which besides often exhausts the soil —bearing as it does no relation to its requirements—is responsible for the growth and spread of serious insect pests which play havoc with crops, and sometimes with men and domesticated stocks.

Such disturbance of the ecologic balance early manifests itself in man's one-sided exploitation of natural resources without that mutual service which alone can keep alive the never-ending cycle of nature's processes. Man commits crime against soil trees and water and nature's vengeance follows quickly. In a river valley, the different sections or levels—forest pasture and tilled land—have reached a bio-economic equilibrium which man disturbs as his increasing numbers demand food fuel and other materials for their living which the mature plain cannot adequately provide.

The story of agricultural decline in old countries is connected with denudation of forests on hill slopes, or, again, the exhaustion of the soil by surface tillage inadequate manuring and the introduction of new crop systems by manufacturing and commercial interests. It is true that geological changes or climatic modifications have contributed to the decay of societies, especially in marginal regions. Such is said to have caused the fall of ancient civilisations in Central Asia, Chinese Turkestan, Cambodia, Central America and Bolivia. But more often the violation of the natural rhythm between the integral sections of the region, or the sacrifice of one section to another, which are man's outrages, have brought into operation forces which have deteriorated and even completely desolated the earth.

In Mesopotamia the pasture land overwhelmed the tilled land when the nomadic races and flocks trampled down agriculture and destroyed the elaborate irrigation system. In England in the 14th century the demand from the continent for English wool and still more in the 16th century the development of wool manufacture at home, resulted in the conversion of fields into sheep pastures and the enclosure of much common land, upsetting the normal balance of occupations. In ancient Spain the tilled land climbed the heights, replacing the forests; eventually the lapse of tillage, the death of olives and so on, and the falling of terrace walls gave denudation free play. In the Ganges Valley we are witnessing to-day the gradual ascent of cultivation to the mountains, the transformation of river banks into bare and inhospitable ravines and the almost complete conversion of pastures into tilled lands.

Swamps and marshes have their use in rural economy. As cultivation extends to the brink of marshes, and these are reclaimed for the plough, the water level tends to sink, making irrigation and agriculture more

[5] Nature, August 31, 1929, p. 328.

and more difficult. The denudation of trees has cumulative bad effects: it tends to decrease the humidity of the air and the equability of temperature, while the grazing of countless herds of cattle sheep and goats on the river banks destroys the jungle cover and makes soil erosion a serious menace to cultivation. The reduction of open grazing lands, and inability to devote any but a mere fraction of the holding to fodder crops, result in impoverishment of cattle and reduction of their numbers. Anæmic cattle anæmic crops and anæmic people are interrelated with one another.

In the delta the increase of population has led to the building of embankment roads and railways which upset the ancient natural over-flow irrigation and drainage of the country. Thus there is not only decline of agriculture in areas deprived of the fertilising silt and exploited for centuries by the heavy pressure of population; malaria also thrives and carries off large numbers.

A comprehension of the complex web of life which shows the systems of animate and inanimate nature inextricably inter-woven by reciprocal actions and interactions may perhaps lessen man's pride. For social progress would be seen to depend more and more not merely on co-operation between fellowmen, but also on the maintenance of the conditions for the reciprocal common life of nature and human society.

There are at least two far-reaching sociological implications of the view of regional inter-relations here presented. The living organism belongs to its region just as much as its parts to belong one another. "Our environment is bone of our bone and flesh of our flesh." The influence of the environment on the organism and of the organism on the environment, expresses the maintenance of specific *normal* structure and activity. From a physical standpoint, we speak of the balance of income and expenditure, of material and energy: from a biological standpoint we speak of the unity of life, the life extending indefinitely beyond the confines of the body. Life is thus an actively maintained whole without spatial boundaries: both the structure and the life activities of the organism must be manifestations of this organic unity, so that they fit one another in the manner found to be actually the case. Life has many forms. But for one organism the life of another is simply part of its biological environment, and is thus included in the unity of its life.[6]

Plant, animal and human communities are systems of correlated working parts in the environment, the relations of some being independent and of others reciprocal; they are physiologically different in different regions, which they alter in their turn, in a continuous process. The boundary lines vanish and new points of contact

[6] J. S. Haldane: The Sciences and Philosophy, Chapters XIII. and XX.

emerge between the realms of the Living and the Non-living. From another direction do we comprehend the unity of physiological mechanism in all Life : that the physiological is related to the physico-chemical and there is no abrupt break but a continuous march of law.[7]

SECONDLY, man's kinship with the lowest of the low suggests a new orientation in ethics. The reciprocal service and adaptation of the different parts of inanimate and animate nature, the realisation in the region of an underlying unity amidst a bewildering diversity, call for a wider pan-theistic morality envisaged under the aspect of conformity with the general and continuous law of Nature, that applies to society as well as to the larger environment of the universe. From the sociological standpoint, the fundamental notion is the balance of social forms and institutions in the setting of the environment, which includes both inanimate and animate nature. Any change in an external factor of the environment induces a series of changes in man's institutions. There is, again, a second series of inter-relations between the human individuals and the institutions of which they form parts. For man, the legacy of institutions and traditions is simply part of his life and activity, and is comprised in the unity of the social process. A change in the institutions alters the character of the individual, and *vice-versa*. Social life, therefore, represents a triadic balance of the individual, the institutions and the region.

[7] Compare Sir J. C. Bose's important discoveries.

AN EDUCATIONAL SYNTHESIS.*

General.

1. By Educational Synthesis is here meant an all-round view and scheme of education, such that all important aspects are included, and such as to offer immediate and logical place to new ideas and experiments. A feeling for synthesis will bar out one-sided enthusiasms for this or that objective in youth-training; that is, it avoids "stunts," and a hasty labelling of natural developments as something "new," and yet watches for the values in every fresh proposal, and finds a place for them. The spirit of synthesis forbids us to regard any one part (university, civic, primary, or kindergarten) as the key to educational order and progress. It seeks to purify and ennoble the whole.

   The synthesis here presented is governed by the idea of *Humanity in Evolution*, the personality unfolding within the circle of that social idea, and there being no opposition of the social whole to the healthy development of the individual. The more we appreciate humanity in its grand evolution, the more we value the personalities which individually symbolise that social progress.

   A true synthesis must inevitably take into full and vivid account the significances of all forms of religion, and seek moral values in all. It will trace a religious urge (or, if you will, spiritual impulse) through evolution and history, from the lowliest phases to the heroic. Hence a valid synthesis can neither allow "religious instruction" as a detached "subject," nor allow it any but a broad, historical and universal meaning.

2. All developments of educational schemes must be correlated with developments in the training of teachers. In the study of our present synthesis, we exclude discussion of the payment of teachers, since that question can only be rightly judged as part of the complete social policy of payment for services. In a sound educational order, natural gift alone should decide the choice of a teacher's calling.

   A vital theme of study must be the relation of womanhood to all stages of education, including the value and conditions of service of mother-teachers.

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* The present document is meant for the eyes of philosophic educationists, and should be followed by appeals, in much simpler language, to the general public, and particularly to the parents of the millions of children in the common schools. It was prepared in a first sketch by Mr. F. J. Gould, and modified by him in a series of revisions, following on discussions at the Le Play House Educational Circle, April-July, 1931.

3. Our study is not concerned with Parliamentary action, or with questions of State-aid for schools, or of privately conducted schools.

   We survey education in three main phases—(a) *Home and Kindergarten*, ages to 7 or 8; (b) *School* (Primary, ages 7 to 11; post-primary, 11 to 14 or 15); (c) *Civic;* that is, introducing ages 15 to 21 into full citizenship.

   So-called "adult" education should be spontaneous.

4. The aim of education should be service of family and commonwealth, expressed in material, artistic and intellectual activities, inspired by history, and perpetually responsive to the claims of the whole circle of humanity; and this duty of service applies to all members of the community without exception.

   By "history" is here signified the story of human evolution and civilisation—nature-conquest, industry, invention, commerce, expression and appreciation of beauty; science; social order and progress, law, morality, philosophy, religion.

5. A valid synthesis tends to abolish all specialised moral efforts, such as teaching Temperance, Kindness to Animals, League of Nations, &c. All such subjects should be integrated into the general framework and ideal. It is the absence of this integration which, meanwhile, justifies such efforts.

6. Always positing a basis of good conditions of birth, and good physical health, the essential values of education may be indicated as (a) Moral, (b) Esthetic, (c) Intellectual, (d) Practical and Civic. These values stand good all along. Of course, they interpenetrate, as when an example of noble (moral) conduct unfolds elements of beauty, implies judgment, and fosters a practical citizenship.

7. Synthesis, as here presented, offers to youth a vast field of attractions and opportunities; but individual aptitudes (that is, the human nature in each personality) will declare themselves, and decide special character developments and direction of service.

8. Our synthesis is Utopian. Sane Utopias are an indispensable aid to progress.

The Teacher's Preparation.

1. It seems safe to say that, given an organised public watchfulness, and economic encouragement, society produces an adequate number of women and men interested in youth, and naturally fitted for educational service.

2. Every teacher in training should have at least an outline conception of the meaning of educational synthesis; the fullest possible conception being needed by those who deal with ages 15 to 21.

3. THE teacher's study should proceed on two main lines—(a) Outline of *Sciences* :—Logic-mathematics ; astronomy ; physics ; geology ; chemistry ; biology ; thence passing to sociology and ethics in—(b) *History, or the Story of Human Evolution and Civilisation.* History will be treated in broad, characteristic " Ages," with selective attention (as already indicated in our " General " view) to *Economics* (nature-conquest ; industry and industrial invention ; crafts ; exchange ; finance). *Esthetic* (beauty in fine arts, literature, household and person, with appreciation of landscape and good environment) ; *Sciences* and their history, and scientific discoveries ; *Social Life* (family ; child psychology ; language ; law ; manners ; industrial organisation ; civics ; religious systems ; and the living issues of personality, economics, city, country, the world community, and religion).

LITERATURE should be primarily regarded as social expression at any given period, not as a separate scholastic " subject " ; though, of course, out of the temporary literary expression, certain enduring values may pass into the broad stream of evolution.

TEACHERS, as sociologists, should be encouraged to practice—(a) The art of social survey, (b) The art of prevision (a tendency already at work in movements such as Eugenics, Town-planning, League of Nations, &c., and in great types of Utopias).

EVEN when natural gift and particular experiences mark teachers as specialists (in music or hygiene, or the sciences, &c.) the utmost care should be taken to keep such activities in relation to the synthetic ideal, both for the teacher's sake and the pupil's. Nor should the accent on the teacher's personality lead to the under-valuation of expert aids from without (historical charts, schemes of celebrations, gramophone records, &c.).

AND since over-fixity of occupation tends to fixity of ideas, the practical educator may, within reasonable limits, pass through experiences as class-teacher, inspector, bureau officer, &c., always having regard to personal taste and capacity.

THREE MAIN STAGES OF YOUTH EDUCATION.

1. *Home and Kindergarten ;* ages to about 7. All teachers (but women specialising), whether prospective parents or not, should follow outline studies of general hygiene (including public aspects), sex hygiene, and child-rearing. Educationists, aided by the wider efforts of sociologists, should seek to bring motherhood into increasing practical touch with child-training. From the home onwards, some sort of personality Register should be kept ; that is, records of temperament and capacity, with a view to correction or development. The Moral and Esthetic values (behaviour, habits,

comradeship, duties, expression in language, music, drama, drawing, making) demand our finest art and attention.

2. *School ;* Primary and post-primary to ages 14 or 15, with class-teaching as characteristic. Reading, writing, and arithmetic are not here treated as detached " subjects ; " they are but means to higher ends.

(a) *Moral.* (The steps in moral training are concisely marked by the words, first, " Must " ; next " Ought " ; and lastly " Let us.") The Evolution story (history) is told pictorially, dramatically, biographically, with accent on ethical aspects of society and historical personalities—self-control, habits, trustworthiness, kindness, industry, beauty, scientific search and service, family, city, motherland, law, the glory of language and interest of etymology ; ethical elements of the world's faiths ; co-operation ; international and inter-racial fraternity. Such a purpose may be embodied in a moral instruction syllabus, as well as carefully woven into the general instruction.

CO-EDUCATION will prevail in the larger part of this second, or School, stage.

(b) *Esthetic ;* that is, appreciation of poetry, legend, folk-lore, parable (with reading and recitation as instruments), music, eurythmy, drama, dance, " celebrations " in assembly, pictures, sculpture, gardening, decoration, architecture, costume ; and of the countryside and historic spots. Good (however simple) speech is essential to a healthy citizenship. Through homely and amusing phrases, stories attached to pictures, &c., most children might make approach to some foreign language.

(c) *Intellectual* (never to be thought of as detached from common-sense.) Nature-study ; simple experiments ; physiology ; school museums. Expression in writing and composition. Logic in two forms. (1) In arithmetic for household and social purposes, and in geometry ; (2) In simple discussions of conduct issues and natural facts (it is important to observe that conduct issues form the most effective material for logic and common-sense. The allusion here is not to the use of " scholastic " logic). Science, in the exact meaning of conception of " laws " of nature, does not belong to the mental field of ages up to 14.

(d) *Practical.* Tending of animals and plants, with anticipations of biology. Leagues of Kindness. Red Cross (as understood in the " Junior Red Cross " movement). Household service. Simple craftwork and designing. Visits to public museums, libraries, botanical gardens, zoological gardens, &c. School journeys. Scouting ; rambling, camping. Not only should Rural Schools be placed in happy relation to rural life and action ; children in urban schools

should be systematically led to appreciate the economic and esthetic values of country life.

NOR, in zeal for such activities as scouting and rambling, should certain fine serenities be forgotten, such as moments of collective silence before a beautiful scene, at intervals of drama, &c., and the far-reaching principle of: "They also serve who only stand and wait."

3. *Civic*, to age 21. Our scheme (with Utopian eyes for To-morrow) is framed for the whole of the young citizenhood; not a selected class.

(a) *Moral.* Illustrated in studies of civics and politics. The outline of history will be repeated, with enlarged appreciation of the world's Faiths. Adolescent expansion of feeling and ideas will be helped by organised recreation and clubs for both sexes (guilds, institutes)—a method which deserves the most energetic support of all good citizens. With such clubs, the countryside ramble may be associated.

FOREIGN languages (which will, of course, in some cases enter into the technical training) should, for most young people, be approached by way of selected stories, drama, poetry, &c.; that is to say, the aim will be ethical and esthetic rather than intellectual and technical.

(b) *Esthetic.* Art in its full sphere. Musical and literary celebrations. Historical study will bring into relief the urge to beauty in all races and times. The clubs and institutes have here a rich field of action.

(c) *Intellectual.* Systematic "popular" lecture-courses for all, and for both sexes, in Logic (stressing social logic, that is, keen discussion of social issues, "pro" and "con," and good-humoured notice of popular fallacies); Astronomy; Physics; Geology; Chemistry; Biology; with notes on the history of each science. Historical study will increasingly emphasise the rational consideration of Economics, Industrial Organisation, Finance; and it will broadly distinguish the "Temporal" function of Law and Government, and the "Spiritual" function of Intellectual and Moral Co-operation, Initiation and Reform.

CO-EDUCATION will rule in many of these studies, activities and recreations, but will be set aside in certain spheres. A like separation or association of the sexes will apply to the teaching-staff. In some form or other, the help of the mother-teacher should be enlisted for certain studies, and in the general administration.

So, also, in the general administration, the co-operation of industrial organisers, artists, scientists, and sociological workers should be sought.

DURING, and at the close of this Civic stage, and assisted by the Personality Register, the suitable form of social activity and service will be more or less definitely (yet in some cases but tentatively) marked out for each young citizen. That is to say, Education and Vocation will approach and blend in the period, 17 or 18 to 21.

THE UNIFYING IDEAL.

ALLOWING for inevitable mistakes and imperfections of methods and of human nature, such an education will help to create—

1. *An Enthusiasm of Development*, inspired by history. That is to say, youth will recognise its intimate membership in the long effort, inventiveness and progress of civilisation.

2. A THREE-FOLD experience of *Harmony* (increasingly felt in social order and polity); of *Expression* (in widening fraternity, art and science); and of *Vision* (in growing confidence and hope, and a larger joy in serving posterity).

3. A *Religion* that naturally unfolds from man's evolution, naturally tends to include all races, and invites us to: "Live for Others: Family, Country, Humanity."

F. J. GOULD.

MODERN GEOGRAPHY AND ITS RELATION TO SOCIOLOGY: by W. G. Brown, B.Sc., M.Ed.

SIXTEEN years have elapsed between the death of Dr. A. J. Herbertson and the proposed establishment, this year, of a chair in Geography in the University of Oxford where he was in charge of the Department.

HERBERTSON was one of the pioneers of the modern outlook in geographical study.
At first a meteorologist, he was influenced both by the French students of plant distribution and also by the Le Play school of sociological studies and became a teacher of geography of a distinctive type, a type which in this country is entirely the product of the 20th Century.

KNOWLEDGE of the earth was once a study small in content and capable of considerable accuracy. This earth knowledge was generally physical in type. A geographer could well claim an important position amongst students. He understood the complexities of climate, the nature of rocks and soils, the position of the heavenly bodies, but this understanding was essentially empirical.

TIME modified his knowledge, and geologists, meteorologists, astronomers, came into being, each penetrating more and more deeply into the complexities of the individual sciences and investigating them, not solely empirically, but scientifically, experimentally.

THE geographer then became a collator for a country or even for the world.

THUS arose the geography which began by a study of physical features (or, rather, a statement) and ended by a discussion of distribution of population in a country.

SUCH a study has little claim for a place in a University curriculum and a questionable claim in any curriculum.

THE idea of this type of geography has persisted longer in general circles than in geographical and consequently modern geography has difficulty in proving its worth.
In Switzerland such a confusion apparently existed at the end of the 19th Century for Miss J. B. Reynolds published in 1898 a small book dealing with the position of geography in Switzerland and N. Italy, a study carried out as Gilchrist Student.

IN its pages she points out that a few years previously a discussion had been held in Switzerland as to the justification for establishing a chair in Geography in a Swiss University.

Some of those considering the question complained that geography involved the half of human knowledge, depending so closely as it does on geology, mineralogy, &c. No man, they asserted, can really know all these branches of science in the sense of being capable of furthering original research. " Hence a geographer must either be superficial and introduce a method of work hitherto not recognised as suitable for a University or he must become a specialist in one or other of those sciences on which geography depends." Some maintained that those who have studied the individual sciences should be capable of performing this work of generalisation themselves.

CERTAIN examples of existing time-tables quoted by Miss Reynolds from Swiss Universities seem to bear out the above criticism.

THE interest of this example is that the same uncertainty as to geography's claim for a rank equal to other studies is still found in our own Universities and, consequently, in schools and colleges.

BUT the last thirty years have witnessed a complete transformation in the general trend of thought concerning nature and particularly man's place in nature.

BIOLOGICAL science has only recently come to a growth sufficient to influence the outlook of man on nature in general.
We no longer think of man and nature in antithesis, rather do we consider man as an evolved element in creation. Yet, though a member of evolved and evolving nature, we believe he possesses the power to apprehend and comprehend nature's laws which he may then utilise to some extent: further, man possesses the power of reflective contemplation on life's drama.

WE may speak of a man-nature complex. Man enters into a natural and a human environment, a definite " culture pattern " created by, and peculiar to, his group, generally in harmony with the physical and natural background.

AGAIN, as we pass into the 20th Century we witness a virtual shrinkage of the world with a focus of interest at first on the production of regions but in more recent times a growing sense of the regions as " societal patterns."

MAN and nature interpenetrate in inextricable patterns, man builds societal relationships upon this foundation of nature and these in turn affect and modify the inter-relationships of man and nature.

WE use the term " inter-relationship " to emphasise the " reversible reaction " implied. We use the term " societal complex " understanding thereby the inter-penetration of man, nature and man's social structures.

THERE is a well-known passage in one of Emerson's Essays in which he connects certain "districts of nature" with their interpreters, their "men of genius"—Plato with philosophy, Newton with physics. The interpreter is one with an understanding of universal ideas which then enter into some particular branch of knowledge. "Each aspect of reality seems to wait," continues Emerson, "like the enchanted princess in fairy tales for a destined human deliverer" and the genius of an age is that person.

GEOGRAPHERS in this country would consider Herbertson as such a person, as one with an understanding of the "climate of thought" of his age (to quote a phrase of Prof. A. N. Whitehead's) and an interest in an aspect of reality:—Geography. Herbertson's contribution to the interpretation of the nature of geography evolved and we must judge by his later writings.

IN particular we must refer to the posthumous article published by the Geographical Association's journal (Vol. 8, p. 147) entitled "Regional Environment, Heredity and Consciousness."
"Man," says Herbertson, "gives himself for his countryside, he puts into it the thought of his brain and the work of his hands, he makes himself a part of it in an essential way and as long as he maintains that intimate union, he transforms it and himself into something different, something more complex, nobler, higher than before. He has to give in order to get. It is impossible to think of either apart from the other. Man and nature here are obviously one and indissoluble. Should any change come into their intimate relations, both alter and the country is not what it was."

PROFESSOR H. J. FLEURE writing at a later date follows the same line of thought. "Man and environment treated antithetically are mere abstractions withdrawn from the warm life blood of that complex reality in which they interpenetrate far too wonderfully to be torn asunder." ("Apology for the Study of Human Geography," in publication GEOGRAPHY IN EDUCATION.)

IT is interesting to notice that in this article Professor Fleure has just discussed the philosophic atmosphere of the 19th Century.

WE must lay great stress upon this change in outlook on man and nature for modern geography has made this study its particular sphere of interest.

THE late Mr. W. H. Barker when Reader in Geography in the University of Manchester formularised modern geography as the study of the "sociology of locality," thereby signifying that the geographer's task was to consider a particular area as a "societal complex." The occupations and general "culture pattern" of the locality and the interweavings of these with the physical (e.g. geology,

climate, &c.) and natural (i.e. flora and fauna) background, and also with the created social environment form, therefore, the geography of that locality at a *particular time* in the history of that " societal complex."

It is both undesirable and incomplete to halt after the study of occupations, e.g. Professor Davis in the introduction to Professor Huntington's Pulse of Asia wrote, " The conception of geography is incomplete unless it deals with the highest and most interesting realm . . . . . mental and moral conditions of man." Modern geography is therefore homo-centric. We may speak of a renaissance in geographical thought for there is a return to the Greek conception of the geographer who was a traveller and recorder of a living and pulsating world.

We may even recall the opening paragraphs of the Geography of Strabo. " The science of Geography which I now propose to investigate is, I think, quite as much as any other science a concern of the philosopher . . . . my predecessors . . . . are right in regarding Homer as the founder of the science of geography . . . . (who busied himself) not only about public activities . . . . but also about geography both of the individual countries and of the inhabited world at large, both land and sea ; for otherwise he would not have gone to the uttermost bounds of the inhabited world encompassing the whole of it in his description."

Geography has indeed emerged from its crystalline state and has entered a true renaissance, regaining the spirit of the Greek geographers, who, not being in possession of our physical and natural knowledge, yet viewed the world, then known, as living and pulsating though they viewed it not as depersonalised and rational observers.

Professor Dewey in his recent Gifford Lectures has emphasised the essential difference.

" The Greeks were keenly sensitive to natural objects and were keen observers. The trouble lay not in substitution of theorising from the outset for the material of perception, but in that they took the latter ' as is.' They made no attempt to modify it radically before undertaking thinking and theorising about it. As far as observation unaided by artificial appliances and means for deliberate variation of observed material went, the Greeks went far." (Quest of Certainty, Ch. IV., p. 86.)

Modern Geography is scientific, though not in Strabo's sense of the term.

There is the translation of the observed phenomena into map, graph, chart, &c., and these form the symbols, which, derived from the material of experience, yet form an abstract means of scientific comprehension of the inter-relationships in the region studied.

FURTHER, the *region* must be the unit. Professor E. Rignano, of the University of Milan, writing in the AMERICAN JOURNAL OF SOCIOLOGY (Vol. 34, No. 4, 1929) on " Sociology, Its Methods and Laws," states that " at the present moment and for an indefinite time in the future, sociological science can undertake nothing above simple research

and the determination of specific, particular, sociological laws . . . . that is, being given and knowing the mode of existence of a definite society at a definite moment, and also being given and knowing the intrinsic and extrinsic factors which act upon this society and upon its modes of action, then, if sociologists can by the aid of these laws determine the intensity and direction of this action, the different sociological phenomena to which it will give rise, and, as the resultant of all these partial effects, the subsequent mode of existence of this society in its ensemble we should be satisfied."

EACH " societal complex " is unique, for throughout that complex men with their powers of volition are working and the products of the working of the human mind are never exactly reproduced elsewhere.

THE " societal complex " is evolved in a definite region composed on the one hand of the physico-natural factors which are themselves unique in a particular area and of social factors " intrinsic and extrinsic " which are more varied and equally unique. Consequently, as our modern geography is essentially sociological it is inevitably regional, and if not regional then not geographical.

THE true approach therefore to the geography of any country of the world would be, first, to break down the total area until each part represented a unit based upon homo-centric considerations. Its determining characteristic would be homogeneity of societal type. Second, these " regions " would be studied by observation and by use of the " critical apparatus " of the geographer. Thirdly, on the completion of these studies a process of synthesis could be employed to " regionalise " the larger area originally broken down and to classify according to types. (Cf. e.g. " Synthetic View of Geographical Regions," GEOGRAPHICAL JOURNAL, Vol. 48, 1916.)

THERE can be no general laws of causal efficacy only regional laws or perhaps, better still, hypotheses.

A SUPERFICIAL outlook may result in a view that certain types of climate produce similar effects but a more intense study of the " societal complex " in these areas will give no such result.
The " physico-natural " background is the scene of the drama, giving certain limitations but in no way controlling that drama.

THE study of the " social complex " must be carried out scientifically, disinterestedly. There must be depersonalised study, yet having pursued such study to completion the student must remember that he is dealing with material in which the human element is the focus of interest. He must exercise all his skill as an artist with a deep understanding of humanity ; he must use imagination but not develop the imaginative ; he must portray the region in living and pulsating lineaments as part of a world reacting and interacting in its progressive evolution.

MODERN geography is a " bridge subject "—not solely a science, but a " science " and an " arts " subject—a reflection of which is seen in its position in the faculties of some of our Universities—both an " arts " and a " science " subject.

HERBERTSON recognised this. He desired geographers to have a " loving familiarity with their regions," what we might also call sympathetic appreciation, using the word sympathetic in its technical sense.

" THERE is a spirit of a place," he wrote, " as well as of a time . . . . No social psychology is worth much that is not also regional psychology and no regional psychology is possible without a loving familiarity with a region. The regional psychology is not the same at all periods of the regional history . . . . The spirit of a place changes with the spirit of the time ; it alters with man's relation to the region."

EVERYTHING in the study of the geographer has passed through the mind of man. The geographer is interested in the group, not the individual, and we can conceive with Professor McDougall a " group mind "—a very abstract idea but one of which we are distinctly conscious.

THERE are many ways of appreciating this element in human societies but undoubtedly a knowledge of group psychology is of infinite value in geographical studies.

SOCIOLOGICAL studies and psychology are complementary ; through sociology, group psychology frames its hypotheses, from these hypotheses sociology gains its fuller understanding of society (e.g. Rivers " Sociology and Psychology," SOCIOLOGICAL REVIEW, Vol. 9, 1916).

PROFESSOR MCDOUGALL, in the introductory passage to his " Social Psychology," emphasises this point.

" Among students of the social sciences there has always been a certain number who have recognised the fact that some knowledge of the human mind and of its modes of operation is an essential part of their equipment and that the successful development of the social sciences must be dependent upon the fullness and accuracy of such

knowledge." Or, again, in the introduction to the " Group Mind " ; " The most important part of the positive basis of the social sciences is psychology ; we find accordingly the social sciences at first ignoring psychology and then gradually working back to it ; they became gradually more psychological, and, in proportion as they did so, they became more valuable."

THE various sciences, e.g. geology, meteorology, economics, psychology. form what we might call the " grammar " of geography. As in literature, if it is considered merely as an exercise in grammar then its value is lost, so in the study of geography, when the regions are used simply as exercises in geographical grammar then the humanistic value is submerged. The " societal complex " must be interpreted, the grammar assists in this interpretation but is subservient to the major interest.

IT was such a transformed geography as this for which Herbertson stood as advocate. The old idea of geography is gradually passing, but with what result ? Is it not clear that geography is becoming more and more a branch of sociology ?

AUGUSTE COMTE, the originator of the term " sociology," placed geography amongst the more positive sciences. To-day it has risen to the rank of one of his least positive sciences.

GEOGRAPHY was grouped with geology in the British Association division of subjects until 1851, with anthropology until 1884. Since then it has been in a distinct section.

THE newly founded Chairs of Geography in our Universities have the opportunity before them of transformation into one of the greatest forces for the furtherance of sociological studies.

THE old stigma still remains in the name " geography " and affects important issues. Yet underneath this " geography " or " regional sociology " there is a subject which can claim for itself a place of foremost rank in the transforming influence it can exert on the world of the future.

TRIBUTES TO THE MEMORY OF VICTOR BRANFORD. II.

"IN THE SMALL BAND OF PROPHETIC THINKERS."

My personal association with Victor Branford dates from the foundation of the Sociological Society in 1904. Though there were several among the founders far better known than he in the intellectual world, it was his initiative and energy that gave it life. It was an amazing experience to me to find a busy city man, with heavy financial engagements, who was willing to give himself heart and soul to the drudgery of secretarial and editorial work for a cause that could have no meaning for his work-a-day associates. I had no idea of his wealth of intellectual equipment until it was revealed in conversation and writing; and then gradually I came to realise that it was this very richness and variety of intellectual and practical experience and the necessity of correlating it that drove him into Sociology.

There were qualities in his thought and feeling which made it difficult for him to work in close harmony with those more academic sociologists for whom sociology represented a disinterested historical study of the several types of human institutions with very little attempt at social syntheses and interpretative valuations. Branford's close co-operation with Patrick Geddes for a sociology based upon biological conditions, and following the lines laid down by Le Play, called for other faculties of interpretation than those of the descriptive sociologist. His work Science and Sanctity, by its fusion of intellectual and religious fervour attracted many free minds in this country and America, and will win for him a lasting place in the small band of prophetic thinkers in an age when old modes of thought and the institutions which they sustained are rapidly decaying. It was characteristic of Branford's creed that he should deem it part of his duty as a sociologist to forecast and to foretell the future, placing the science of Society at the service of the art. For art is always prophetic, taking its life in its hands and using an informed imagination as its directive force. His voyage towards Eutopia was not a mere restless adventuring of the soul but a well charted voyage with the favouring winds of reason and of hope.

J. A. Hobson.

A REMINISCENCE.

I was first introduced to Victor Branford at a small Committee Meeting where some old friends had met to discuss the ramification of housing. I was at once struck with the extent of his knowledge

and with the incisive and lucid way in which he expounded his solutions of the problems.

He was a born student, widely read, and though I knew very little of his early history, I felt that he was one of those men whose whole life had been devoted to research and enquiry. When I met him he had come under the influence of that magnetic prophet and seer, Professor Patrick Geddes, and Branford may be regarded as the one man who could translate the ideas of Geddes into concrete facts.

His knowledge and acquaintance with the intricacies of financial, industrial and social conditions, combined with his remarkable analytical powers, enabled him as an essayist to influence the opinions of a wide circle of less imaginative, though perhaps more practical, men, and his indirect influence on the trend of modern movements in commerce and industry, must have been much wider than is generally supposed.

He was a Sociologist who always had before him a concrete picture, and his treatment of a subject was always directed to a realisable end.

There was that about Victor Branford which attracted less knowledgable, though knowledge-seeking, men. His explanation of an obscure position was a thing to be sought after : he was at his best at a round table discussion.

One of the most unselfish of men, he devoted his life, his energies and his money to the cause of social amelioration. He was not a prophet on a mountain, nor was he preacher or politician amidst the crowd ; with all his reserve of knowledge and ability he was just an ordinary man.

On the last occasion that I met him I received one of the surprises of life. Not many years ago I had driven him in my car from his cottage in the New Forest to London. He was not in good health, but his spirit was undaunted. This was before he had that serious illness at Hastings. I missed him for a long time, but one day having been induced to visit an Ice Rink at Kensington, I noticed among the professional skaters an active little man pirouetting and circling with the best of them. There seemed to be a remarkable likeness between the professional skater and my old friend Branford, and it was not until he was seated and I went up to him to assure myself of the absurdity of my delusion, that I discovered in this wonderful skater my old friend Branford.

He lived to a ripe age, but to those who knew him, he was to the end, a young and active man.

S. D. Adshead.

"EXACT IN SPECULATIVE IDEAS AND ROMANTIC IN RESEARCH."*

IT must be confessed that what Branford understood by Sociology was a special kind of social philosophy, rather more of a confession of faith than a science. It is hardly possible to characterise the nature of his philosophy in, as it were, official scientific terms. Branford was a man of such a peculiar individuality that it is almost impossible to place him in a definite category. At all events, there does not seem to be any place for him in the system of the German scientific organisation and such men as he are very seldom met with in Germany. It was not by chance that he looked to Le Play as his ideal; he most nearly resembles Le Play. His ideas were partly theological-mystical and in this respect quite unpositivist. The man was, however, also a student of natural science, a mathematician, a statistician; he was by profession—and this is a thing that can only be understood from observing the play of contradictions in the lives of many people—a public auditor, he was a business man, a pioneer of farming and commerce in South America, he was at the same time a social reformer and, above all, the author of SCIENCE AND SANCTITY, the preacher of a cult of healing which strove to join in one before God the scientific mind and a state of hallowed innocence. But even these indications do not suffice in any degree to define the man who sprang from an old East Anglian family and who counted a sister of Isaac Newton's amongst his forbears. Friends speak of his humour, his mocking irony when criticising his fellowmen whose understanding of him was so vague, but they also tell with deep feeling of times of great pathos and ecstacy in this man who devoted himself heart and soul to matters of intuition and emotion.

FROM 1904 onwards he devoted his intellectual powers and a considerable portion of his fortune to Sociology. He also gave lectures in America. At this time he began to write those original books and pamphlets of which, as occasion has offered, I have endeavoured to give a short impression in extracts I made from the SOCIOLOGICAL REVIEW for this paper. First and foremost came SCIENCE AND SANCTITY; then his co-operation with Geddes in the volumes of the work written by them, THE MAKING OF THE FUTURE, particularly the volume, THE COMING POLITY. Distinctive as is the title of the chief work, that of his American lectures, INTERPRETATIONS AND FORECASTS, is no less so. His eye was always on the future, on a new and better society which was to be neither capitalistic nor socialistic.

IT seems to me that Branford's mentality, his merits and deficiencies, are partly to be explained, not only by his inborn characteristics, but

*Condensed from an appreciation in the KÖLNER VIERTELJAHRSHEFTE FÜR SOZIOLOGIE, Part 1, 1930-31.

also by his career. He did not belong to the scholastic world and was not really brought up in the service and culture of a certain science. He was essentially self-taught, a great dilettante. For such an outsider in science, who comes in to it from the practical side and is driven to research chiefly from a feeling for ethic and a zeal for reform, the spiritual is a unity in which the needs of feeling and imagination and the will to reform are inseparable from the urge to acquire knowledge. He never saw the necessity for analysis, self-control and discipline in a branch of study, and in that respect he resembled many Germans. He mixed up exact research and religious mysticism; in fact, he was often exact in speculative ideas and romantic in research. For this reason much in his books appears incomprehensible to the non-believer in his teaching. The man who leans more to a classic ideal in his work for science than to a romantic one will refuse to follow Branford's teaching and ideas. But what man who knows anything of him can help finding him truly worthy of love and reverence.

LEOPOLD VON WIESE.

"CONCERNED WITH THE THINGS THAT MATTER."

I HAVE had the privilege of knowing Victor Branford for many years both as an enthusiastic supporter of the study of sociology and its application to various aspects of community planning, and also as a charming host in his own home.

HE was a man whose life and interests were all concerned with the things that matter. Public spirited to a remarkable degree, his whole time and energy were given to the development of ideas and the forwarding of plans which seemed to him of the greatest importance for the public welfare.

HIS literary contributions have exerted an influence on a limited circle who were able to read and appreciate what he wrote. Through them his ideas will reach a much larger public; and his influence will be greater than any with which he will be generally credited.

RAYMOND UNWIN.

COMMUNICATION.

THE SOCIOLOGICAL REVIEW is asked to note the formation of THE BRITISH POPULATION SOCIETY, being the British National Committee set up under the Statutes of the International Union for the Scientific Investigation of Population Problems (International Population Union).

THE purpose of the British Population Society is to develop in Great Britain and Northern Ireland scientific studies pertaining to the problems of population, both by supporting research and by promoting the co-ordination of work by allied bodies. In particular, it will pay attention to the International aspects of population problems; and it is empowered by the statutes of the Union above mentioned to nominate delegates to represent it at the meetings of the Union, to propose questions for discussion by the Union, and to co-operate both with the national organisations set up in other countries under the statutes of the Union and with the Research Commissions appointed by the Union.

AT a meeting held on November 6th, 1931, the following Members were elected to form the Executive Committee:

Sir Bernard Mallet, K.C.B. (Chairman).
Professor Arthur L. Bowley, Sc.D.
Miss Mabel C. Buer, D.Sc.Econ.
Colonel Sir Charles Close, K.B.E., C.B., F.R.S.
Professor C. B. Fawcett, D.Sc.
Captain G. H. Pitt-Rivers.

COMMUNICATIONS may be addressed to the Chairman, British Population Society, at 8 Eccleston Square, London, S.W.1.

THE SIXTH WORLD CONFERENCE OF THE NEW EDUCATION FELLOWSHIP is to be held at Nice, France, from July 29th to August 12th, 1932. The subject of the Conference will be EDUCATION AND CHANGING SOCIETY, and it will deal with questions of general sociological as well as educational interest. Particulars can be had from the NEW EDUCATION FELLOWSHIP, Tavistock Square, London, S.W.1.

DR. HENRY S. WELLCOME has founded a Gold Medal to be awarded annually by the Royal Anthropological Institute for the best Anthropological research essay. Particulars can be had from the Royal Anthropological Institute, 52 Upper Bedford Place, London, W.C.1.

THE CATHOLIC UNION FOR SOCIAL SCIENCE offers a prize of 30,000 lira for a work on the development of Christian Social Thought from the Institution of the Church to the Apostolic Fathers included. Particulars may be had from the Unione Cattolica per le Scienze Sociali, Presso l'Universita Catt. del S. Cuore, Via S. Agnese, 2, Milan, Italy.

BOOK REVIEWS.

THE NEGRO IN AMERICAN CIVILISATION : by Charles S. Johnson, Fisk University. New York and London. 1930. pp. xiv+538. (Price £1.)

THIS work may be confidently recommended to all who are interested in the status of the Negro in the United States. It is primarily based on statistical studies and is almost coolly judicial in tone. It deals in a number of chapters with the Negro's work, his health, his home, his education, his recreations, his law-abidingness, and his civic rights. The book is naturally coloured by the important fact that over a million Negroes have migrated to the North since the United States joined in the Great War.

THE broad facts seem to be about as follows. There are now some 12 million Negroes in the United States, about 10 million in the South and 2 million in the North. " The Negroes are 16.2 per cent. of the farm population of the United States as compared with 9.9 per cent. of the total population. They are 26.9 per cent. of the total population of the South and 30 per cent. of the farm population." (p. 119.) Almost 7 out of 10 Negro males are engaged in domestic and personal service. In the census year 1920, 18.5 per cent. of Negro children between 10 and 15 years of age, as compared with 8.4 for the country as a whole and 5.3 for native whites, were gainfully employed. In the same year, 22.9 per cent. of the Negro population were illiterate. About 70,000 Negro business enterprises exist and these almost entirely depend on Negro custom—insurance companies, banks, restaurants, hairdressers, grocery stores, undertakers' establishments, &c. The educational facilities in the South leave very much to be desired, although considerable financial and other assistance is forthcoming from philanthropic agencies. As to higher education, there are 19,000 Negro college students and some 2,000 obtain annually the B.A. degree. There are some 4,000 Negro physicians. The Negro death rate is considerably higher than the native white death rate, but lower than the latter was 30 years ago and lower than that of several European countries to-day. Criminality is alleged to be high among Negroes. Housing and recreational facilities are quite inadequate as a rule. In the South the Negro is mostly disfranchised.

IN pondering these facts, it should be remembered that the Negro has made great progress in virtually every direction, more particularly during the last thirty years. Automatically therefore we may assume that at least the education, the health, and the law-abidingness of the Negro will register a decided advance as the years pass. The extremely low economic status of the Negro population, with all the unfavourable consequences this entails, has obviously to be allowed for in judging the Negro's general status to-day.

HOWEVER, there is no disguising the fact that race prejudice is for all intents as powerful as ever, even though there are considerable forces arrayed against it. The glaring, all-overarching fact is that there is no promotion or advancement for the Negro in business life. He has to be a hewer of wood and a drawer of water, whatever his abilities. His only present hope of economic advance lies within his own race. And yet the ancient gibes as to Negro incapacity sound passing strange in face of the educational statistics we have quoted. The cheap logic of the last century has lost its point : " Man was made in the image of God, and since God, as every one knows, was not a Negro, it follows that the Negro is not a man." Race

prejudice, issuing in race discrimination, thus effectively prevents the Negro race as a whole from climbing upward and is keeping it largely at the level of the unskilled labourer. Negroes have to contend with the "hostility of white fellow workers and foremen, limitation of work to the most disagreeable kinds, poorest pay, exclusion from many of the unions where membership is essential to employment, and a long array of fixed conceptions and misconceptions about themselves and their race." (p. 87.) Save in certain parts of the North, the Negro is generally handicapped in the matter of residence, housing, recreation, education, travelling, social intercourse, and free citizenship.

Two methods of racial amelioration are advocated. The one most widely followed is steadfastly and energetically to seek to improve the conditions of life of the Negro and gently to deprecate race prejudice, especially by multiplying the occasions for friendly contact between the two races. Along this line much excellent work is being done and conceivably nothing else can be stressed for the present. The second method is the political one, warmly championed by Dr. DuBois. "I hold this truth to be self-evident," he writes, "that a disfranchised working class in modern industrial civilisation is worse than helpless. It is a menace, not simply to itself, but to every other group in the community. It will be diseased; it will be criminal; it will be ignorant; it will be the plaything of mobs; and it will be insulted by caste restrictions." He contends that "no permanent improvement in the economic and social condition of Negroes is going to be made, so long as they are deprived of political power." Dr. DuBois' reasoning will find ready acceptance; but the difficulty is that the overwhelming majority of Negroes live in the South and that the South has no free voting at all. That is, the restricted Negro vote is to a large extent connected with the restricted white vote and the issue is therefore the root-and-branch reform of the voting machinery and of the general outlook of the South.

During the last half-century we have learnt much. The grotesque notions our grandfathers entertained of the mental limitations of Indians, Chinese, and Japanese have disappeared. The belief in the inferiority of women is rapidly passing away. National dislikes are more and more found to be groundless. The fabled gulfs between the "classes" are gradually coming to be recognised as fables. Finally, that thousands of Negroes are passing, without exceptional difficulty, through the universities, is a fact. It is time, then, for sociologists to discourage on principle all group discrimination and to point systematically to the teachings of recent history on the subject. These teachings involve that charges of innate inferiority against a group must be supported by wholly unexceptionable and entirely unequivocal evidence. From this volume we learn, besides, that race discrimination not only inflicts physical and moral sufferings on innocent men, women, and children, but also lowers the moral tone of the community where they are persecuted; promotes political corruption; depresses standards of living; and retards general progress. G.S.

THE INDUSTRIAL EFFICIENCY OF INDIA: by Rajani Kanta Das, M.Sc., Ph.D. King. 1930. (8s. 6d.)

The proximate destiny of mankind upon Earth seems to be, through much tribulation, towards a general state of pacific industry, in which apparently all the various races of Humanity will take their relative parts. India, like the other countries of the Orient, has been evolving and extending her own

special forms of industry, the basic one being always and necessarily agricultural, and the others conditioned by climate and place and people. But that she, and those other Eastern countries, should have to pass through some of the phases of modern Western industrialism as we have known it, is obviously undesirable and is also, we may hope, avoidable; some of the results have not been wholly laudable. Dr. Kanta Das accepts as inevitable and beneficial the entry of India into world industry in some forms, and he has been very strongly moved to proclaim a strenuous call to action to his country, that her peoples make themselves efficient. A travelled man, he has already published several works on Indian labour questions at home and abroad; and in this volume, of some 200 pages, he analyses briefly the economic problem of India, from a broad and practical viewpoint. His thesis is that the fundamental cause of India's poverty is her industrial inefficiency—"the inability of her peoples to make the best use of her potential resources for productive purposes." National efficiency he measures by the production of social wealth, not only for the present generation, but also and especially for future generations—through the development and conservation of natural resources, through capital and its productive use, through cultural progress, national status, and so on. Himself an Indian, his judgment upon the present conditions of Indian life and outlook is critical and trenchant; and it seems to reinforce much that has been written and said, during recent years, by Indian and other authorities and observers. He points to (*a*) the wastage of arable land, forests, fisheries, minerals, and water-power; (*b*) the wastage of man-power and labour, due to ill-health, to ignorance and superstition, and to non-employment; and (*c*) the wastage of capital, by its non-use, by unproductive investment, by hoarding, by poorness of the cattle; and he maintains that, in effect, India is only one-third as efficient as she might be. He supports his criticisms by detailed descriptions under those various heads. He then devotes the second half of his book to setting forth, in serious phrase, the practical remedial measures he sees to be required. The whole is interestingly arranged, the style is direct and forceful, and the aim is definitely constructive and patriotic.

W. F. W.

THE FIGHTING KINGS OF WESSEX: by G. P. Baker. G. Bell and Sons. 1931.

HERE is a very readable and even racy succession of portraits of early Kings and heroes, not only in their wars but in their statesmanship: thus giving us a most unusually vivid and interpretative view of essential policies and events from the withdrawal of the Romans to the Norman Conquest. Hence, as the writer indeed justly claims, a book that includes in one sweep such tremendous personalities as Hengist, "King Arthur" (whom he identifies with Ambrosius Aurelianus), Charlemagne, Ragnar Ladbrok, King Alfred, Archbishop Alphage, Olaf the Holy, and Canute the Great, has respectable claims to call itself interesting. How true this is the reader will readily find: for here is a history which retains much of the spirit of the Sagas which have contributed to it, and also with the penetrating interpretations of character which are nowadays giving such new and living interest to the advancing art of biography.

YET our author is a serious and thoughtful general historian as well, not only vivifying events, but illuminating social periods with keen and reasoned

interpretations and breadth of grasp. Thus he evidences anew that clear understanding of Roman character, history and civilisation, of which he has given evidence in former works (his SULLA, TIBERIUS, CÆSAR, and HANNIBAL), so with further light upon the decline and fall of Rome, and yet the indestructible persistence of its influence.

A GREAT merit of this remarkable book is thus its treatment of its times, not merely as our island story, as historians have too often limited it, but in its place in European history, and that with significance more than we have commonly realised.

MR. BAKER'S readers will therefore look forward to his next volume for corresponding light on the character and the careers of William the Conqueror and his successors up to Edward the First; and thence to later ones also in preparation: for it is plainly evident that we have here one of those new and first-rate historians who not only deeply study our annals but substantially contribute wider and fuller interpretations of them.

P.G.

THE GIRL VOTER: TALKS ON HER INHERITANCE, HER RESPONSIBILITIES, AND HER OPPORTUNITIES: by E. M. White. Herbert Russell. (2s.)

THE purpose of this book is to help the girl voter to relate herself to her social environment. She is brought into the midst of the Great Society and the author asks her to look this way and that: backwards to the primitive family and tribal *community* which shared *common* responsibilities; forward with women citizens such as Sybil Thorndike, Rachael and Margaret McMillan, Margaret Noble, to a vision of a world from which ignorance with the evils it endures are banished by those who have worked "with commonsense as well as enthusiasm"; to the East and to the West where in the past the lonely pioneers are planting the Nations of the Commonwealth; around and about where men and women are working at the problems of self-government in Local Councils, in Parliament, in the League of Nations. The principles of our political parties are outlined, and the responsibilities of the voter stressed. The Women's Suffrage Movement is alluded to as the work to which Dame Millicent Fawcett "devoted the greater part of her life." One wishes that a young voter could have heard more of the struggle which removed this bar to her fuller citizenship. But it is hardly fair to question selection when the hundred and twenty-seven pages are packed so full of references to interesting personalities and events!

THIS is a good book to place in the hands of a young person entering upon adult life—"Think of yourself," Miss White says to her, "as standing on a high ground made up of all that has supported you—your family, which rests on your village, town, or city, and that again on your nation, which itself is part of the British Commonwealth, in its turn a member of the League of Nations, and, finally, a part of the whole human race. That is your basis. You will descry some bars, but there are many avenues leading to life and opportunities." An inspiring introduction to a busy and changing world—changing so fast that the next edition of this book will have to omit Mr. Ramsay McDonald as "Leader of the Labour Party," and note that the Mary Ward Settlement has again broadened its basis to include men as well as women. Exercises follow each chapter, adding to the adaptability of the book to the teaching of citizenship in schools.

J. T.

special forms of industry, the basic one being always and necessarily agricultural, and the others conditioned by climate and place and people. But that she, and those other Eastern countries, should have to pass through some of the phases of modern Western industrialism as we have known it, is obviously undesirable and is also, we may hope, avoidable; some of the results have not been wholly laudable. Dr. Kanta Das accepts as inevitable and beneficial the entry of India into world industry in some forms, and he has been very strongly moved to proclaim a strenuous call to action to his country, that her peoples make themselves efficient. A travelled man, he has already published several works on Indian labour questions at home and abroad; and in this volume, of some 200 pages, he analyses briefly the economic problem of India, from a broad and practical viewpoint. His thesis is that the fundamental cause of India's poverty is her industrial inefficiency—"the inability of her peoples to make the best use of her potential resources for productive purposes." National efficiency he measures by the production of social wealth, not only for the present generation, but also and especially for future generations—through the development and conservation of natural resources, through capital and its productive use, through cultural progress, national status, and so on. Himself an Indian, his judgment upon the present conditions of Indian life and outlook is critical and trenchant; and it seems to reinforce much that has been written and said, during recent years, by Indian and other authorities and observers. He points to (*a*) the wastage of arable land, forests, fisheries, minerals, and water-power; (*b*) the wastage of man-power and labour, due to ill-health, to ignorance and superstition, and to non-employment; and (*c*) the wastage of capital, by its non-use, by unproductive investment, by hoarding, by poorness of the cattle; and he maintains that, in effect, India is only one-third as efficient as she might be. He supports his criticisms by detailed descriptions under those various heads. He then devotes the second half of his book to setting forth, in serious phrase, the practical remedial measures he sees to be required. The whole is interestingly arranged, the style is direct and forceful, and the aim is definitely constructive and patriotic.

W. F. W.

THE FIGHTING KINGS OF WESSEX: by G. P. Baker. G. Bell and Sons. 1931.

HERE is a very readable and even racy succession of portraits of early Kings and heroes, not only in their wars but in their statesmanship: thus giving us a most unusually vivid and interpretative view of essential policies and events from the withdrawal of the Romans to the Norman Conquest. Hence, as the writer indeed justly claims, a book that includes in one sweep such tremendous personalities as Hengist, "King Arthur" (whom he identifies with Ambrosius Aurelianus), Charlemagne, Ragnar Ladbrok, King Alfred, Archbishop Alphage, Olaf the Holy, and Canute the Great, has respectable claims to call itself interesting. How true this is the reader will readily find: for here is a history which retains much of the spirit of the Sagas which have contributed to it, and also with the penetrating interpretations of character which are nowadays giving such new and living interest to the advancing art of biography.

YET our author is a serious and thoughtful general historian as well, not only vivifying events, but illuminating social periods with keen and reasoned

interpretations and breadth of grasp. Thus he evidences anew that clear understanding of Roman character, history and civilisation, of which he has given evidence in former works (his SULLA, TIBERIUS, CÆSAR, and HANNIBAL), so with further light upon the decline and fall of Rome, and yet the indestructible persistence of its influence.

A GREAT merit of this remarkable book is thus its treatment of its times, not merely as our island story, as historians have too often limited it, but in its place in European history, and that with significance more than we have commonly realised.

MR. BAKER'S readers will therefore look forward to his next volume for corresponding light on the character and the careers of William the Conqueror and his successors up to Edward the First; and thence to later ones also in preparation: for it is plainly evident that we have here one of those new and first-rate historians who not only deeply study our annals but substantially contribute wider and fuller interpretations of them.

P.G.

THE GIRL VOTER: TALKS ON HER INHERITANCE, HER RESPONSIBILITIES, AND HER OPPORTUNITIES: by E. M. White. Herbert Russell. (2s.)

THE purpose of this book is to help the girl voter to relate herself to her social environment. She is brought into the midst of the Great Society and the author asks her to look this way and that: backwards to the primitive family and tribal *community* which shared *common* responsibilities; forward with women citizens such as Sybil Thorndike, Rachael and Margaret McMillan, Margaret Noble, to a vision of a world from which ignorance with the evils it endures are banished by those who have worked "with commonsense as well as enthusiasm"; to the East and to the West where in the past the lonely pioneers are planting the Nations of the Commonwealth; around and about where men and women are working at the problems of self-government in Local Councils, in Parliament, in the League of Nations. The principles of our political parties are outlined, and the responsibilities of the voter stressed. The Women's Suffrage Movement is alluded to as the work to which Dame Millicent Fawcett "devoted the greater part of her life." One wishes that a young voter could have heard more of the struggle which removed this bar to her fuller citizenship. But it is hardly fair to question selection when the hundred and twenty-seven pages are packed so full of references to interesting personalities and events!

THIS is a good book to place in the hands of a young person entering upon adult life—"Think of yourself," Miss White says to her, "as standing on a high ground made up of all that has supported you—your family, which rests on your village, town, or city, and that again on your nation, which itself is part of the British Commonwealth, in its turn a member of the League of Nations, and, finally, a part of the whole human race. That is your basis. You will descry some bars, but there are many avenues leading to life and opportunities." An inspiring introduction to a busy and changing world—changing so fast that the next edition of this book will have to omit Mr. Ramsay McDonald as "Leader of the Labour Party," and note that the Mary Ward Settlement has again broadened its basis to include men as well as women. Exercises follow each chapter, adding to the adaptability of the book to the teaching of citizenship in schools.

J. T.

AN INTRODUCTION TO THE STUDY OF SOCIETY: by Frank H. Hankins. New York. 1929. ($4.)

As the title indicates, we have before us not a sociological text, but "an introduction" to the study of society. The aim of the work is to simplify the preliminary preparations of the university student in sociology by freeing him from the necessity of attending special courses in a variety of subjects such as the origin and the antiquity of man, the races of man, the physiographic, biological, psychological, and cultural factors in social life, the fundamental social institutions, and the like. Here, in this portly, but not ponderous, volume of nearly 800 pages, the student is to find everything he requires for following intelligently advanced courses in sociology.

THIS INTRODUCTION is scholarly throughout. The university student who masters it, will, generally speaking, be in possession of the leading facts he is in search of. From this point of view the length of the work is to be commended, for it enables the author to treat every one of his major subjects with relative adequacy. A much shorter book would have been inevitably scrappy. On the other hand, the plan of the work makes the task of the author exceedingly difficult, for who dare lightly play the part of encyclopedist? Even here, however, the student will have little to complain of. And with it all, the work is written in limpid, vigorous English, free from technical and non-technical jargon.

THE sociological outlook, as in so many kindred American works, is decidedly eclectic. Every theory is lovingly woven into the new "pattern." This contributes to a certain serenity of style which is rarely present in definitely controversial volumes. The student has thus not the truth, but at least all the truth or half-truth current in his day. This method would become, however, a menace to the advance of truth if it implicitly discouraged fundamental research and fundamental criticism. The author is also keen on compromises. Are Negroes inferior as a race to the white race? They are, he contends, but a great many Negroes are superior to a great many whites. Have Nordics, Mediterraneans, and Alpines different mental qualities? They have, he claims, but a mixture of the three is best. And the author is genuinely tolerant—not only towards scientific theories, but towards all kinds of political views.

DIFFERENCES in the innate mental capacity of individuals and races play a leading part in the author's sociology and especially are the contributions of men of genius stressed. The latter, according to him, are indispensable for progress. We read thus that "some genius hit upon the art of chipping stones into implements" (p. 385) and that, at a certain period of social evolution, "the next great advance was made when some ingenious individual learned how to stretch and twist fibrous materials into threads by means of a spindle." (pp. 478-479.) Evidently, research is replaced here by pure imagination, an imagination that makes one individual responsible for what in all probability ages gradually developed. In agreement with the eclectic spirit, too, the fundamentally distinctive nature of man is defined and re-defined in the terms of the numerous prevailing theories on the subject—to the confusion, no doubt, of the young student.

ON one topic the author is militantly uncompromising. He champions the claims of science and combats those of traditional religion. He holds that we cannot properly grasp the truths of social science unless we reject the traditional religious beliefs. "Nothing that is known to actually exist," he exclaims, "is lost by the disappearance of such beliefs. The psycho-social basis for attitudes of goodwill, loyalty, devotion to duty, and to what is

believed good and right remains." (p. 594.) We have here manifestly the retort courteous to American fundamentalism. In these circumstances, the popularity of the work is significant. G. S.

THE EDUCATION OF THE WHOLE MAN: by L. P. Jacks. University of London Press. 1931. ( )

THIS book consists of fourteen chapters, some of which were first written as lectures to thoughtful audiences. Each chapter—with one or two exceptions—is complete in itself: and the book thus does not possess the appeal that the gradual and progressive development of its theme would give. It has however a unity of theme and intention: and these gain rather than lose by their expression and re-expression in each chapter. It need hardly be said that the author's style retains its clarity, simplicity and humour: the book is enjoyable as well as instructive.

ALTHOUGH Dr. Jacks hardly mentions sociology, his thesis is sociological throughout. Education and life are inseparable: work and leisure form a whole: body and mind cannot be sundered. Education, therefore, to be of any effect, must be vocational—not in the narrow sense, of preparation for a specialised trade, but in the full sense, of preparation for man's destiny. Training of body and mind must become two aspects of a single process: and—in view of man's destiny—that process must aim at creative activity.

IF it be objected that this is impossible under our present conditions—

"UNDER this conception, education ceases to be a departmental activity, either in the sense of being limited to a few years of early life or in the sense of being carried on by a special class in the community. It becomes a social enterprise of the first magnitude, covering the life of the citizen from birth to death and demanding the mobilisation of all the higher forces of society, of the key men of every city, of the "vote and influence" of every citizen. We are concerned here with something greater than vocational education. We are concerned with an enterprise whose final object, fantastic as it may seem at the moment, is to *make vocations educational.*

"THAT the difficulties are enormous needs no saying. But the fate of industrial civilisation depends on our having the courage to attack them and the vision that sees beyond them."

LES SOCIÉTÉS DE LA NATION: les elements constitutifs de la Nation française. "Editions Spes," Paris, 1930. (45f.)

THIS large and detailed work, by the Librarian of the Musée Social in Paris, is of interest in itself and as expressing a conception of the nation. The author sees the modern nation—and France in particular—as a complex of almost innumerable associations. He begins by a careful classification and descriptive treatment of these: he then considers the position of these associations in relation to the law—and incidentally to the constitution: and finally he discusses the practical problem of how this vast and varied complex can best be reorganised for governmental purposes. Attention is given throughout to the historical aspects of the subject: and in discussing practical matters the experiments and plans of other countries are drawn upon freely.

CLEARLY this is a work that will interest all students of contemporary politics and social movements. To readers in Great Britain or other English speaking countries, every page will suggest useful contrasts and comparisons. Many will be reminded of the work done by the Webbs in similar fields in this country.

FROM a sociological point of view, two criticisms may perhaps be made. The treatment throughout is too exclusively documentary to satisfy a field worker: a few simple descriptions—in vivid French style—of the meetings or operations of some of the bodies described would make them more real to us. *And there is no treatment at all* of local communities—communes, towns, cities. Can it be that those are not "societies?" or is it that they no longer count in France?

LEWIS HENRY MORGAN, SOCIAL EVOLUTIONIST: by Bernhard J. Stern. University of Chicago Press (Cambridge University Press). 1931. (11s. 6d.)

MR. STERN'S life of L. H. Morgan is a quiet sound piece of work which will usefully fill a place in many libraries. It follows standard patterns in literary and scientific biography: there is a short biographical section at the beginning, followed by a detailed account of each of Morgan's works, with much illuminating comment on these in the form of letters from his scientific correspondents, extracts from reviews, and concise remarks by the biographer. The whole gives the material for an up-to-date estimate of Morgan's place in the history of anthropology, and of his main contributions to the development of the science.

NOT least attractive is Mr. Stern's unruffled narrative of the origin, and one of the prominent results, of Morgan's anthropological studies. The former lay in the formation by him and two or three other callow ex-students of a secret society—"an Indian Order"—which from "playing at Indians," or something very like it, developed into a basis for serious study. The latter was the adoption of his ANCIENT SOCIETY (Morgan being an earnest Presbyterian democratic individualistic capitalist) as a leading textbook of the world socialist movement.

FROM WORLD UNDERSTANDING TO WORLD PEACE: by Hélène Claparède-Spir. London, 1931. (6s. 6d.)

MADAME Hélène Claparède-Spir, of Geneva, an ardent and indefatigable worker for peace, has collected here over three hundred notable post-war utterances pleading for a pacific solution of differences between nations.

THESE utterances are drawn from Great Britain, France, Belgium, Germany, Austria, Czechoslovakia, Poland, and the United States. The sociological student will find the volume decidedly interesting. An analysis of its pages shows distinguished soldiers denouncing the inanity and brutality of war, well-known jurists demanding a juridical settlement of disputes, educationists insisting on the new generation being educated in an atmosphere favourable to peace, representatives of religious bodies and representative women expressing themselves as relentless opponents of the war spirit, and statesmen dilating on the futility of war for settling disputes between nations. Economists have apparently no special contribution to make, although the economic aspect receives full attention, and the press comes in for little praise and much criticism.

THERE is a Preface by Prof. Gilbert Murray, an Introduction by Prof. David Starr-Jordan, and a Concluding Word by Prof. Paul Monroe.

G. S.

ELEMENTS OF RURAL SOCIOLOGY: by Newell LeRoy Sims. (Crowell, New York.) 1928.

THE fact does not escape even the most casual observer that our civilisation has two major aspects—a rural and an urban. The two complement each other, else there would be no civilisation as we know it. At the same time they are so apart and opposite at so many points that each becomes a world by itself. The student of society must therefore give them separate consideration.

THESE are the opening words of Dr. Sims' book on rural sociology, which concentrates on the rural phase of present-day culture. He considers it under five heads and in some twenty-eight chapters. His material is very largely drawn from the United States: the book is obviously meant chiefly for students there.

AFTER a general introduction, he studies the people themselves, their physical and mental characteristics and habits of life. In the next part come special chapters devoted to traditions, the family, the farm home, rural religion, the rural church, play and recreation, sanitation, health, &c. Next the material side is studied, wealth and income, and standards of living. Finally, we have the structural element—community life, co-operative societies, and other phases of rural organisation. Each chapter is followed by a selected bibliography. There are 74 graphs and maps and 12 illustrations.

THE book is the product of years of special investigation and intimate knowledge. It impresses the reader at the outset as one of the most comprehensive surveys yet made of this important field. As an introduction to the subject it will serve its purpose well; students outside the United States will find much in it that is of immediate use. It is also indirectly a source of suggestions for social investigation in rural areas.

PUBLIC WELFARE ADMINISTRATION IN CANADA: by Margaret Kirkpatrick Strong. University of Chicago Press (Camb. Univ. Press). 1930. (13s. 6d. net.)

IN view of the increasing recognition which public welfare administration is receiving both in North America and Europe, this introductory study of the government social services in Canada is timely. Dr. Strong has made a critical analysis of both the federal and the provincial administrative organisation; and presents in its historical setting a picture of Canadian institutions and standards in public welfare. The social problems to which chief attention is given are poverty, delinquency, lunacy, feeble-mindedness, and the protection of children.

THE book will make an appeal not only to those immediately interested in government, as legislators, administrators, or students of political science, but also to social workers. Some will naturally find matter to criticise in the author's views: she seems to be a whole-hearted supporter of state action, and to have little use for voluntary effort under "modern democratic conditions."

THE greater part of the study is devoted to public welfare in the provinces of Ontario and Quebec. The influences of the past are strong in both provinces and have led to striking differences in the organisation for handling social problems. Quebec still relies much on the voluntary efforts of the Church: Ontario has carried State organisation much further. To a student on this side of the Atlantic these differences seem interesting and conducive to variety and adaptability in social service. The author, however, hardly cares to stress this aspect.

ALFRED WEBER'S THEORY OF THE LOCATION OF INDUSTRIES: with Introduction and Notes by C. J. Friedrich. Univ. of Chicago Press (Camb. Univ. Press). 1929. (13s. 6d. net.)

ALTHOUGH this work first appeared in Germany in 1909, it has not before been translated into English. Yet it is a very important book, which no social student, economist, or geographer can afford to neglect.

IN summary, the book is an attempt to analyse the working of the factors that influence the locations and movements of industry in modern times. The main method used is not historical or statistical, but abstract: not inductive but deductive. To many readers, accustomed to the use of inductive methods in similar fields, the treatment will seem difficult and inconclusive. To those a close study of the sections where the author tries to "reintroduce the realities" can be recommended.

THE reasoning is based upon the specific analysis of three "factors" which are shown to be general regional determinants: transportation costs, labour costs, and agglomeration advantages. The latter include all advantages due to conducting a given manufacturing unit in conjunction with others rather than alone, after the disadvantage (rent) due to such agglomeration has been eliminated. The importance of this aspect, from a theoretical point of view, has prompted the editor, in his valuable introduction, to attempt to indicate the relation between the theory of rent and that of location, as it has always been recognised by English and American economic theorists. It is also pertinent to suggest the links between Weber's theory and the general theory of locations in the city structure put forward by Park and Burgess in their book—THE CITY.

IT is obvious that from such a theoretical analysis of location some light may also be thrown upon such problems as monopoly, transportation rates, and international trade.

CONTEMPORARY SOCIOLOGICAL THEORIES: by Pitirim Sorokin. Harpers, New York and London. 1928. ($4.00: 15s.)

IT may be assumed that every student of the social sciences who peruses this book will be compelled to admire and enjoy the learning on which it is based and the easy command of his vast store of material that the author displays on every page. Most will have to admit that they cannot hope to rival him in these respects, and will thank him for a work which does for them so much more than they could ever do for themselves.

THE book contains a reasoned summary and criticism of all the sociological theories that have weight in the contemporary world of thought: it devotes most attention to the recent expositions of such theories, but also gives a summary view of their past history. Theories are classified (so far as may be) under a simple scheme—mechanistic, biological, &c. The exposition of each is clear and full: the bibliographical material is excellent. The adherents of particular schools of thought will no doubt find some matter for criticism in the treatment of these schools. To take only one example to the contrary, however—the section devoted to Le Play and his school is full, fair, and adequate, contrasting to its advantage with most previous treatments of the topic in America.

IT may be argued that the book is not constructive: that it leads nowhere in sociology. And this is true: its character is preliminary, not final: much further study will go to the schools of thought dealt with before the good grain is all winnowed out. Still, with this book to aid, we know better the extent of our task.

THE INTERPRETATION OF NATIONAL DIFFERENTIATIONS: by Nicholas Petrescu. Watts. 1929. (7s. 6d. net.)

THIS volume aims at an elementary treatment of the theoretical problems raised by the existence and nature of Nationality. The treatment includes some discussion of the "value" aspect of Nationality, an examination of the process of differentiation in society, and a discussion of the "interpretation" and "translation" of national differences—these words apparently meaning the explanation of such differences in terms of simpler and more radical social phenomena.

WHILE the book has an easily flowing style, many pages communicate a sense of obscurity in thought, and of the artificial simplification of the argument by the neglect of important factors. A more radical defect is the tendency to treat the whole problem of nationality by the isolation and examination of unitary elements in its manifestations. It is indeed surprising—in view of the general acceptance of biological ideas—that any writer to-day should think that nationality can be explained away (for that is what it amounts to) by showing that its manifestations can be analysed into elements that—taken separately—do not appear to present any of the special *differentia* of nationality. We may all agree that nationality is to-day exaggerated, over-valued; some may even see in it the source of all our woes: but no truthful observer can deny its vital quality: it is vital, as virtue and sin are vital. The fuller recognition of this would give the book under review greater interest and a more truly sociological character.

THE SCIENCE OF SOCIAL RELATIONS: by Hornell Hart. Holt, New York. 1927. ($3.60)

THIS volume in the AMERICAN SOCIAL SCIENCE SERIES professes to be, and is, an Introduction to Sociology. As such, planned and carried through on unusual lines, it deserves attention and criticism. It may be said as a preliminary that both academic and general readers will find it a little difficult to penetrate the fortifications of "Written Assignments" and suggestions "for Original Thought and Discussion" which surround the core of the book: that does not alter the fact that an idea worth thinking over is to be found by those who persevere.

BRIEFLY, Professor Hart's idea is to make first acquaintance with Sociology through the examination and discussion of social relations. To some extent he deals with abstract relations—conflict, equality, accommodation, mental conflict: later he treats relations between men and women, parents and children, conflicts of race and culture, conflict in industry. While the discussion throughout is elementary, it is varied and comprehensive: one gets the impression that no student can work through the book thoroughly without knowing how to put a good deal of his everyday experience into sociological terms.

IT remains a question whether this is the best approach to Sociology. Those of us who begin with the group could find a good deal to say: and one argument of great force could be brought to bear—all relations are ultimately reducible to group relations, and cannot be fully understood except as such. Probably the truth is that any method of beginning with Sociology is right if it makes the student think: the different modes of approach must be brought into use as required, in order to maintain active thinking.

A.F.

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ARCHIV FÜR SOCIALWISSENSCHAFT UND SOZIAL POLITIK	Vol. 66, pt 2
ARCHIV FÜR KRIMINOLOGIE	Vol. 87 No. 4
ARCHIVIO DI STUDI CORPORATIVI	Vol. 1, No. 3; Vol. 2, No. 1
ASIATIC REVIEW	October
BREAD AND FREEDOM	August-September-October
BRITISH JOURNAL OF EDUCATIONAL PSYCHOLOGY	November
BULLETIN DE LA STATISTIQUE GÉNÉRALE DE LA FRANCE	July-September
CHARITY ORGANISATION QUARTERLY	October
CHINESE ECONOMIC JOURNAL	August-September
COMMONWEALTH	August-November
COUNTRYMAN	July-December
EUGENICS REVIEW	October
ECONOMICA	May
FEDERATION BALKANIQUE	August-October
GARDEN CITIES AND TOWN PLANNING	September-October-November
GEOGRAPHY	September
GEOGRAPHICAL REVIEW	October
HEADWAY	September-November
HIGHWAY	October-November
HINDUSTAN REVIEW	May-July-September-October
INDIAN MAGAZINE	August-October
INTERNATIONAL LABOUR REVIEW	August-September-November
INTERNATIONAL REVIEW OF AGRICULTURE	August-September
INTERNATIONAL CONCILIATION	September-October
ISLAMIC REVIEW	October
JOURNAL OF ADULT EDUCATION	September-October
JOURNAL OF THE COMMONS AND OPEN SPACES	October
JOURNAL OF HEREDITY	June-August
JOURNAL OF INSTITUTE OF INDUSTRIAL PSYCHOLOGY	October, 1930
JOURNAL OF THE LONDON SOCIETY	September-November
JOURNAL OF THE NATIONAL PLAYING FIELDS	October

Journal of Negro History	October
Kent Education Gazette	August-November
Kölner Vierteljahrshefte für Soziologie	Vol. X, Nos. 2. 3, 4
Kyoto University Economic Review	July
League of Nations Monthly (Summary)	July-September
Labour Management	September-November
Man	September-November
Millgate Monthly	September-November
Monist	October
Musée Social	July-October
New Health	September-November
Nuovi Studi	May-August
Okonomiog Polotik	November
Political Science Quarterly	September
Progress	October-December
Purpose	October-December
Quarterly Journal of Economics	November
Revista de Derechos y Ciencias Sociales	July
Revue des Etudes Cooperatives	July-September
Revue de L'Institut de Sociologie	July-September
Revue Internationale de Sociologie	September-October
Rivista Internazionale	September
Rotary Wheel	July-August
Sbornik	Vol. VI. Nos. 1, 2. 3
Scientia	September-November
School Nature Study Journal	October
Scottish Geographical Journal	September-November
Social Science Abstracts	September-November
Sociologiká Revue	Vol. II., pts 1, 2, 3
Social Service Review	September-November
To-day and To-morrow	July
Tarsadalomtudomany	May-August
Vestnik (akademie zemedelski)	Vol. VII., pts 1-9
Vierteljahrschrift für Sozial und Wirtschaftgeschichte	Vol. 24, pt 3
World Unity	September-November
Weltwirtschaftliches Archiv	October
Zietschrift für Völkerpsychologie und Sociologie	September

THE SOCIAL SURVEY: by Shelby M. Harrison. Russell Sage Foundation. 1931. (25c.)

This pamphlet is reprinted, with changes, from the Introduction to A Bibliography of Social Surveys, reviewed in these pages in No. 1 for this year. It gives a full and readable account of its subject, and may be usefully compared with the pamphlet on Social Surveys recently issued by Le Play House.

LAS SOCIEDADES CIENTIFICAS, LITERARIAS, Y TECNICAS DEL MUNDO: par Enrique Sparn. Cordoba. 1931.

"Miscelanea No. 18" of the Academia Nacional de Ciencias of the Argentine Republic. A list, classified by subjects, countries, and number of members, of scientific, literary, and technical societies with more than 1,000 members.

Volume Nine of the Guide to Current Official Statistics (price 1s. net, post free 1s. 5d., pp. 319) has just been issued, and may be obtained direct from the sale offices of H.M. Stationery Office or through any bookseller.

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